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THE RADIOLOGICAL DIAGNOSIS OF AORTIC SINUS ANEURYSMA

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The radiological appearance of the heart in two patients admitted to hospital in congestive cardiac failure suggested the diagnosis of an aneurysm involving the aortic sinus in each patient.

Both cases subsequently came to autopsy, where the pathological diagnosis was considered to be an aneurysm of the aorta which included the aortic sinus in both instances.

The roentgenographic appearances in these patients were so similar and the site of the pathology so well defined that it was thought worth while giving a brief description of the two cases. In one of the patients the aetiological factor was proved to be cystic medionecrosis of the aorta and in the other the cause of the aneurysm was syphilis.

CASE 1

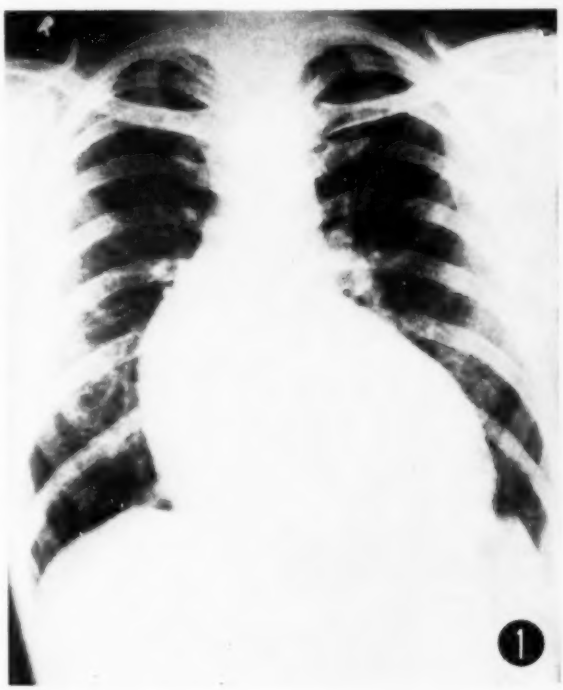
A European male aged 30 years was admitted to the hospital with the complaint of palpitations, dyspnoea on exertion and dull praecordial pain related to effort. These symptoms had been present for a period of 2 years. The only other symptoms of note were slight cough and the onset of puffiness in the face, particularly round the eyes early in the morning. This latter complaint had been present for one year.

On physical examination the patient was dyspnoeic at rest, the carotid pulsations were marked, there was obvious venous congestion, and there was hepatomegaly. The heart was found to be enlarged clinically, the maximum impulse being displaced downward and toward the left. There were diffuse praecordial pulsations. A loud systolic and a diastolic murmur were heard maximally at the base, but heard so well over most of the praecordium as almost to obliterate the normal heart sounds. The peripheral pulses were collapsing in nature and the pulse rate 75/min. The blood pressure in the arms was equal and measured 170/90. The fingers were mildly clubbed.

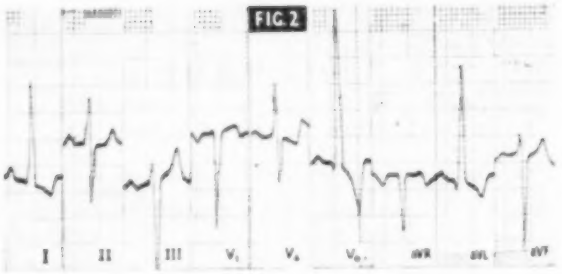
Laboratory Findings. The blood and cerebrospinal fluid had negative tests for syphilis. No abnormalities were to be found in the urine. The red-cell count, the haemoglobin level and the leucocyte count were normal.

Radiological Findings. The heart appeared to be markedly enlarged. The left border extended well out towards the left. A prominence was present on the upper part of the mid-portion of the right cardiac border. The aortic knob was not prominent and no calcification was observed. Left ventricular enlargement was confirmed by screening, and on the oblique radiograms. The bulging area on the right border was seen to pulsate actively in inverse relationship to the ventricular pulsations.

(A postero-anterior radiogram is reproduced in Fig. 1).



The Electrocardiogram. The standard leads showed left axis deviation, and the position of the heart was interpreted as horizontal from the uni-polar limb leads. There was abnormally high voltage present in leads reflecting left ventricular potentials. T was inverted in leads 1, aVL,



V5 and V6, with St segment depression in V2 to V6. The electrocardiographic diagnosis was that of left ventricular hypertrophy (Fig. 2).

The patient responded poorly to treatment and died suddenly. The clinical diagnosis was that of congestive cardiac failure, aortic insufficiency and aneurysm of the sinus of Valsalva.

Autopsy

Cardiac Findings. There was generalized cardiac enlargement due largely to the great hypertrophy of the left ventricle. The antero-lateral part of the ascending aorta showed aneurysmal dilatation. This diffuse dilatation extended down the aorta to involve the aortic sinuses, mainly the right coronary sinus. The aortic valves were insufficient.

Histology (Figs. 3 and 4). Numerous sections of the dilated part of the aorta were prepared and stained (1) with haemotoxylin and eosin, (2) with modified Mallory's aniline blue-orange G and (3) with Weigert's elastic-tissue stain.

The changes in the aorta were marked and fairly uniform throughout all sections. The intima showed a moderate degree of thickening, due to increase of sub-endothelial connective tissue, amongst which scattered muscle fibres were present. The media was of normal thickness but there were numerous breaks in the continuity of the muscle and elastic tissue. These breaks contained connective tissue of loose texture with small cystic spaces of irregular size and shape. In the adventitia some of the vasa vasorum showed marked thickening of their walls and narrowing of their lumina. The elastic tissue of these vasa vasorum was increased and frequently fragmented. The findings are suggestive of idiopathic cystic necrosis of the media of the aorta.

CASE 2

Very little clinical information was available on this patient. This was an elderly male admitted to the hospital in congestive cardiac failure. He had the complaints of praecordial pain and dyspnoea. Both were related to effort.

Clinical examination revealed the presence of cardiac failure and aortic insufficiency.

The patient had a positive serology for syphilis.

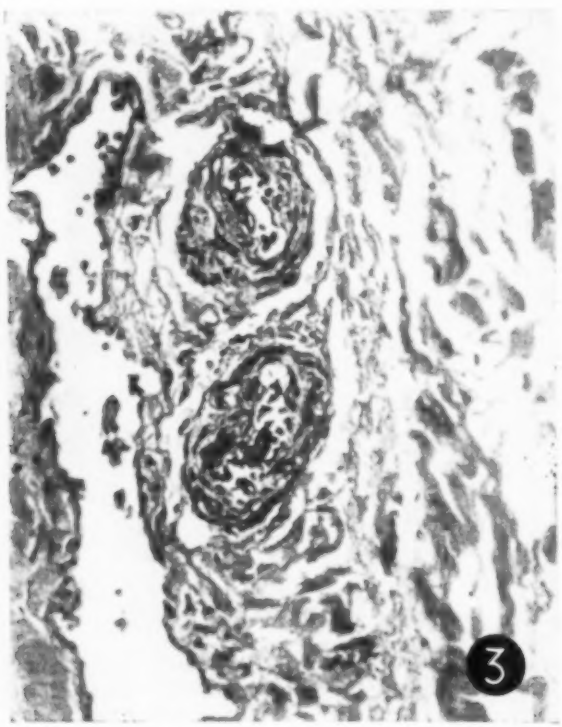
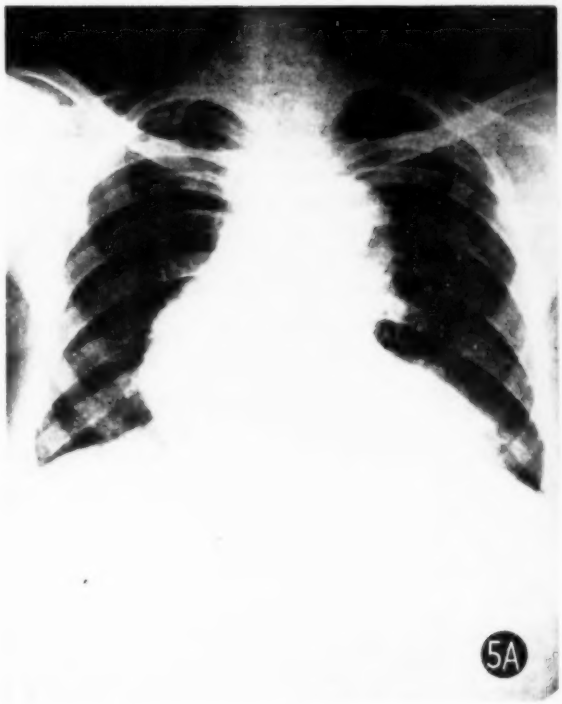
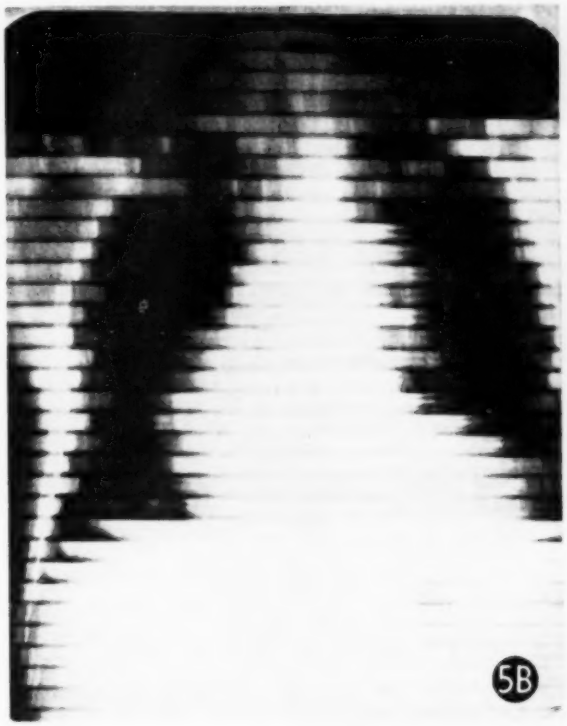


Fig. 3. Section of adventitia X 625 showing 2 vasa vasorum with thickened walls and narrowed lumina.

Fig. 4. Section of media X 500 showing fibrosis and cystic degeneration.





Radiological findings. The postero-anterior roentgenogram (Figs. 5a and 5b) showed the presence of marked cardiac enlargement mainly of the left ventricle. A localized bulge was present on the middle right cardiac border. Kymographic studies on this prominence showed it to have pulsations identical to those of the aortic knuckle. The patient's stay in hospital was unaccompanied by any improvement and he died rather suddenly.

Autopsy Findings on the Heart. The heart was enlarged, the enlargement being due largely to left ventricular hypertrophy. An aneurysm of the ascending aorta, involving the aortic sinuses, was present.

DISCUSSION

Aortic sinus aneurysms may be congenital in origin or have an acquired aetiology. In a review of the available clinical and pathological material Morgan-Jones and Langley (1949) point out that congenital sinus aneurysms are confined to the right coronary sinus and the adjacent two-thirds of the right non-coronary sinus. The aneurysms are usually small and almost always project into the cardiac cavity, rather than externally. Accordingly they found that in 8 cases where radiological examinations had been made no evidence of a localized aneurysmal bulging had been present.

Seven cases of aortic sinus aneurysm were recently described by Venning (1951). Amongst these were 3 cases who had radiological investigation. One of these cases was considered to have a congenital aortic sinus aneurysm while the other 2 were probably congenital with superimposed bacterial endocarditis. No distinctive radiographic appearances were observed but, on screening, the small branches of the pulmonary artery were seen to pulsate actively. This finding was thought to indicate pulmonary hypertension and taken with the clinical findings of aortic insufficiency could be interpreted as an abnormal shunt from aorta to the right side of the heart.

It seems very unlikely, therefore, that congenital aortic sinus aneurysms will produce any distinctive changes in the radiological contour of the heart.

Acquired aortic sinus aneurysms may arise from any of the 3 aortic sinuses (Morgan-Jones and Langley—1949). An accurate account of the normal anatomical relations of the aortic sinuses has been given by Ostrum and others (1938). With the exception of the left coronary sinus the relations are all intracardiac. A saccular aneurysm of one of these sinuses will as a rule, therefore, present intracardially. An aneurysm of the left coronary sinus may, however, present primarily on the left cardiac border in the region of the pulmonary conus.

The acquired aneurysms of the aortic sinuses are usually large, and by increase in size can extend upwards and become extra-cardiac. Similarly an aneurysm primarily of the ascending aorta may by extension encroach upon and involve the aortic sinuses. Such aneurysms are then partly extra-cardiac in position and may become radiologically recognizable. In both the cases here described an aneurysm involving the right coronary sinus and the ascending aorta was present. Associated with this dilatation there was aortic insufficiency and enlargement of the left ventricle. The combination of the bulge on the upper

right cardiac border and the hypertrophied left ventricle gave these hearts a radiological appearance which was fairly distinctive, and the cardiac shadow can be described as 'sickle-shaped.'

The aetiology of acquired aneurysms of the sinus of Valsalva has been found to be syphilis in the majority of case reports and reviews (Laycock; Schwab and Sanders 1931; Morgan-Jones and Langley). Arterio-sclerosis is also mentioned as a possible cause and Morgan-Jones and Langley describe one case due to an active aortitis of rheumatic origin. To the best of the author's knowledge cystic medionecrosis has not been described as the pathological process responsible for any cases of aortic sinus aneurysms. The aneurysm in the first case here reported was due to cystic medionecrosis but cannot be claimed as a true aneurysm of the aortic sinuses since it appears rather to have been an aortic aneurysm which involved the sinuses secondarily.

SUMMARY

1. Two patients admitted to hospital in congestive cardiac failure were diagnosed as cases of aortic sinus aneurysma on the basis of a distinctive roentgenogram which showed bulging of the upper right cardiac border and enlargement of the left ventricle, the contour of the heart appearing 'sickle-shaped'.

2. Autopsy findings on these two patients showed the presence of an aortic aneurysm involving the ascending aorta and the aortic sinuses.

3. The aetiological factor in one cases was cystic medionecrosis and the other syphilis.

We wish to thank Professors H. W. Snyman and P. J. Kloppers for permission to publish the first case and to Professor J. Barnetson for the histological report. To Dr. A. J. Brink for assistance with the manuscript.

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ABSTRACTS

The Control of Post-operative Pain in Ano-rectal Surgery. Tucker, C. C. (1952): J. Kan. Med. Soc., **53**, 230.

Seventeen males and 23 females, ages 14–85 years, who were not selected, were the subjects of this study of the use of Efocaine in ano-rectal surgery. There was no deviation from normal surgical technique, and the usual surgical anaesthetic was given.

The main sensory nerve supply to the anal and perianal skin traverses the ischiorectal fossa, and large branch nerves, mainly the inferior haemorrhoidal nerves and perianal branches of the 4th sacral nerves, approach the anus from the postero-lateral aspect. These nerves are deeply embedded in the subcutaneous fat, and at the anal verge they pass inwards through the external sphincter muscles. The Efocaine must be deposited, therefore, in such a manner as to block all sensory stimuli to these nerves. A 3-inch 22-gauge needle was inserted into the tissues of the posterior commissure about an inch from, and parallel to, the anus. A small amount of Efocaine was injected ahead of the needle, which was withdrawn to the skin surface but not from the skin and then reinserted into the deeper subcutaneous tissues laterally and to the right, and the drug again injected ahead of the needle, so that the injections were made in a fanwise manner. This procedure was then repeated on the other side. In almost all ano-rectal surgical indications approximately 10 ml. Efocaine will provide complete anaesthesia of the area, although the extent of the surgery and individual needs of the patients would necessitate variation in the dosage. The drug should be evenly distributed in order to completely block the nerves. Care must be taken that the needle does not penetrate the rectal wall, and that the drug is not deposited intradermally. No bulging should follow injection if it is sufficiently deep, and the anaesthetic should be introduced slowly and continuously. This technique presupposes that the patient is under the control of another anaesthetic, and where this is not the case, skin-wheals should be raised with procaine hydrochloride solution, the needle being inserted through the wheals. In order to eliminate subjective influences, the patient, attendants, and nursing staff were kept in ignorance of the nature of the study, and the patient was carefully studied for presence of pain, local reactions, presence of anaesthesia, and effect on wound healing. One index of post-operative pain relief was the narcotic requirements of the patient, and no attempt was made to withhold this medication.

The results were impressive: 23 patients required no medication during hospitalization, and 9 received only 1 dose. Of 4 receiving 2 doses of narcotic medication, 2 were very apprehensive, 1 had pain on dilation, and one received only 3 ml. of Efocaine, which was insufficient to provide a complete block of the perianal region. Four patients required more than 2 doses of sedative, one being an alcoholic, and the others having developed severe anxiety reactions. In all, 32 patients received either none or 1 dose of sedative, 4 received 2 doses, and 4 more than 2. It is important that almost all post-operative medication in these cases was given for reasons not connected with surgery. Six patients were catheterized on the first day of surgery, which compared favourably with figures given by other workers, and confirmed the anaesthetic activity and pain relief. Sphincter control was normal in all. As a rule, local anaesthesia lasted for more than 10 days. In 2 cases where its effect was diminishing in 5 and 7 days respectively, further injections were given. Post-operative care was more flexible because of the anaesthesia, and early ambulation was promoted. No untoward reactions were observed.

The authors concluded that Efocaine was an effective means of pain control in ano-rectal surgery.

Hyaluronidase and Hypodermoclysis. Editorial (1953): J. Amer. Med. Assoc., **151**, 644.

This editorial reviews recent evidence demonstrating the dangers of subcutaneous injection of large-molecule substances such as glucose, invert sugar and amino acids, even in isotonic concentrations and even with hyaluronidase.

Though hyaluronidase extends the diffusion of such solutions over a larger area, it does not hasten its absorption. Several hours are required to bring a subcutaneously infused 5% (isotonic) solution of dextrose into equilibrium with the blood, so that absorption can proceed. During this time, considerable quantities of fluid and electrolytes are drawn from the blood into the subcutaneous tissues. The resultant decrease in plasma volume may cause serious fall in blood pressure, and even circulatory collapse, as well as oliguria or anuria. The danger is particularly great in patients with poor circulation and those already suffering from dehydration or salt depletion.

It is concluded that "only solutions containing salt alone in isotonic concentration can be safely used for hypodermoclysis".

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VAN DIE REDAKSIE

VETSUG

Met die aanvang van die versekeringsbesigheid was die fris en gesonde gesette man as 'n eersteklas kandidaat vir lewensversekering beskou. Toe lewensversekeringrisikos egter deur lewensversekeringgeneeshere en aktuarisse op 'n medies-statistiese basis bereken is moes hierdie idee laat vaar word. Oor die algemeen word dit aanvaar dat vetsug gevaarlik vir die gesondheid is. Benewens die uitermate gewig wat op sigself 'n fisiese hindernis word, word dit aangeneem dat dit die individu vir 'n verskeidenheid van ‚ontaardings'—siektes vatbaar maak.

Die mening dat sekere siektes die ‚boete van vetheid' is, word gekritiseer. Die korrelasies tussen oorgewig en sterflikheid, en tussen oorgewig en die voorkoms van hartbloedvatsiektes, suikersiekte, galblaassiekte en sekere ander ongesteldhede is nie so maklik om te interpreteer nie. Gewigaantekenings vir assuransiestatistieke word gemaak ten tye van aansoek om 'n polis, en die oorsake van dood word noteer wanneer die polis 'n eis word; veranderings in liggaamlike gewig kom in die tussentyd voor. Ook kan die interpretasie van 'n korrelasie al sou dit altyd 'n direkte oorsaaklike verhouding toon, skerp gekritiseer word, want beide die siekte en die vetheid mag, byvoorbeeld, aan 'n gemeenskaplike oorsaak, soos 'n algemene oorerflike neiging, te wyte wees; so ontwikkel slegs 5% van vet mense suikersiekte. Die verligting van baie siektes deur gewigsvermindering, kan nie, volgens sodanige kritiek, verwag word nie, ongeag watter voordele uit gewigsvermindering mag spruit nie. Behoorlik beheerde studies is nog nodig om te toon of gewigsvermindering sulke werklike en aansienlike voordele van gesondheid en hoë ouderdom voortbring as wat algemeen aanvaar word.

Ten spyte van kritiek uit sekere kringe wil dit voorkom asof die verwantskap tussen oorgewig en die ontaardingsiektes wat as oorsake van ongeskiktheid en dood in belangrikheid toegeneem het, op 'n statistiese basis bewese is, en dit is duidelik dat dit wenslik is om oorgewig te verhoed. Met die behandeling van die toestand, moet die psigologiese agtergrond ondersoek word, want behalwe dat dit 'n egte bron van plesier is, mag voedsel as 'n plaasvervanger vir ander onbevredigde behoeftes dien. Wat die oorsaak ookal mag wees, sal die dieetkundige behandeling 'n mate van ongemak veroorsaak, en deur die slagoffer ‚wat in sy eie vet verstrik is' kwalik geneem word. Vir die betreklike kort tydperk van gewigsvermindering, sowel as gedurende die daaropvolgende maande en jare, wat nog strenge selfbeheersing vereis, ‚moet 'n duidelike begrip van die mediese gevare van vetheid, tesame met die estetiese drang, help om die pasiënt aan te spoor.'[1] met die estetiese drang, help om die pasiënt aan te moedig.'[1]

1. Nutr. Rev. (1953): **11**, 144.

EDITORIAL

OBESITY

In the early days of the insurance business the hale and hearty stout man was regarded as a prime candidate for life insurance. However, when life insurance risks came to be evaluated on a medico-statistical basis by life insurance physicians and actuaries this idea had be to abandoned. Obesity is generally accepted to-day as being hazardous to health. Apart from the excessive weight becoming a physical handicap in itself, it is believed to predispose the individual to a variety of 'degenerative' diseases.

There has been criticism of the view that certain diseases are the 'penalties of obesity'. The correlations between overweight and mortality, and between overweight and the incidence of cardiovascular diseases, diabetes, gallbladder disease and certain other disorders, are not so easy to interpret. Weight records in insurance statistics are taken at the time of application for a policy, and the causes of death are recorded at the time the policy becomes a claim; changes in body-weight occur in the interval. Again, the interpretation of a correlation as always showing a direct causal relationship can be severely criticized since, for example, both the disease and the obesity might be due to a common cause such as a common hereditary trait; thus only about 5% of obese people develop diabetes. The alleviation of many diseases by weight reduction cannot, according to such criticism, be expected, no matter what other benefits from weight reduction may ensue. Properly controlled studies are still needed to show whether weight reduction brings such real and substantial benefit in health and longevity as is generally assumed.

In spite of criticism from certain quarters the association of overweight and the degenerative diseases which have gained importance as causes of disability and death appears to be established on a statistical basis, and prevention of overweight is clearly desirable. In the treatment of the condition the psychological background needs investigation, for besides being a genuine source of pleasure, food may serve as a substitute for other unsatisfied cravings. Whatever the cause, the dietary treatment will be associated with some discomfort, and resented by the victim 'trapped in his own fat'. From the relatively brief period of weight reduction as well as during the subsequent months and years, which still demand severe self-discipline, 'a clear understanding of the medical dangers of obesity, in addition to the aesthetic impulse, should help to motivate the patient'.[1]

1. Nutr. Rev. (1953): **11**, 144

BRONCHOGENIC CARCINOMA

A REVIEW ILLUSTRATED BY 100 CASES

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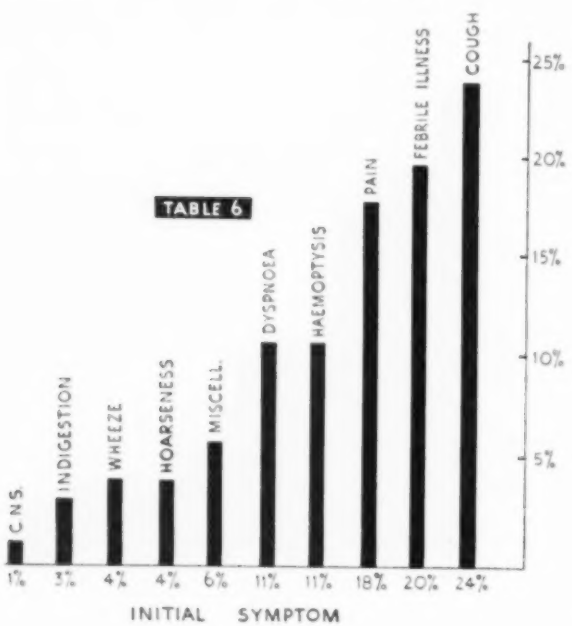
(Concluded from page 846)

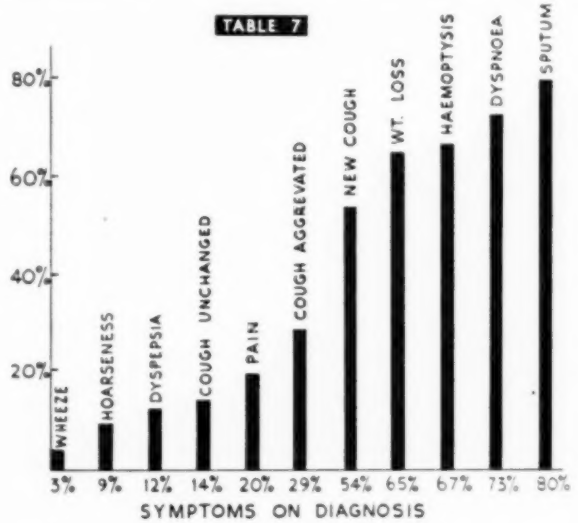
SYMPTOMS

The early symptoms (see Table 6) are very slight. An influenzal attack persisting longer than usual, an alteration in the character of a chronic cough, a slight haemoptysis, transitory breathlessness due to atelectasis, unilateral wheezing due to partial obstruction, pleuritic pain from pleural involvement, are all diagnosed as diseases and the underlying pathology is not recognized. In other cases the symptoms are misleading and are due to involvement of the mediastinal glands, e.g. huskiness



due to left recurrent-nerve involvement, hiccough due to involvement of the phrenic nerve, burning sensation due to involvement of the sympathetic, swelling of the face due to superior vena-caval obstruction, dyspnoea from pressure of the glands and dysphagia from pressure upon the oesophagus. At other times the symptoms are predominantly those of pulmonary suppuration, e.g. lung abscess or empyema. Sometimes the first evidence is that of a distant cerebral metastasis or a secondary in the skin.

Usually, however, the patient presents with one or other of the following symptoms (Table 7): The onset of a persistent dry cough in a middle-aged patient or a slight alteration in a pre-existent one is suggestive. At this early stage even X-rays can on occasion be negative, and the diagnosis must be established by bronchoscopy. As the tumour grows into the lumen mucoid sputum is produced; as it ulcerates blood-staining ensues, and if there is gross infection purulent sputum is evident. Daily blood-staining, according to Brock,[2] is almost diagnostic. Pain is often experienced—a dull ache or a sharp pleuritic stab. If severe it is usually a late manifestation due to infiltration either of the intercostal nerves or the posterior



root ganglia, actual invasion of the spinal cord, or often, bone secondaries. One of the presenting symptoms is often breathlessness due to atelectasis, pleural effusion, pericarditis or pressure of glands on the trachea. Patients often present with symptoms of secondary infection distal to a growth and are diagnosed as bronchitis, influenza, pleurisy, pneumonia, lung abscess, or empyema. Brock[2] states that one-third of lung abscesses over the age of 45 are due to bronchogenic carcinoma. This figure has become even higher with antibiotics. The diagnosis of unresolved pneumonia should never be accepted in the middle-aged individual and a tardy convalescence or general ill-health in middle age should make one suspect

an underlying carcinoma. Many primary growths remain symptomless for a long time and thus symptoms are no guide to the real duration of the tumour. General deterioration of health, loss of weight and loss of strength should not be regarded as symptoms of carcinoma of the lung for which a patient is to be successfully treated. They are usually signs of approaching death.

PHYSICAL SIGNS

The presence of physical signs indicates an advanced lesion. They are as follows:

(a) *General Signs*:

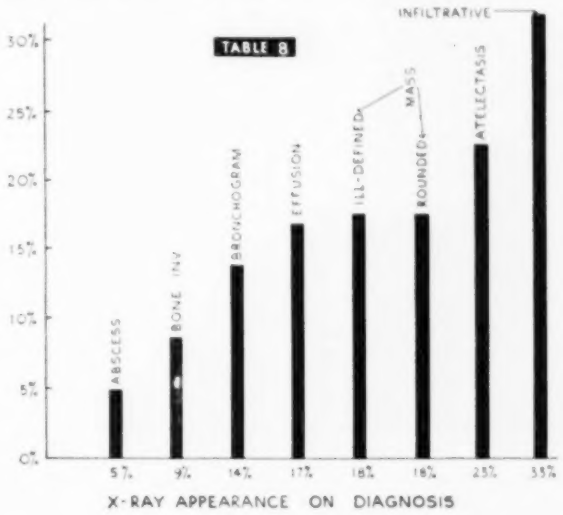
1. Loss of weight. This is a late sign and many patients when put to bed and treated with antibiotics for a lung abscess gain weight despite an underlying carcinoma.
2. Secondary anaemia from toxic absorption and repeated haemoptyses.
3. Leucocytosis—usually from the secondary infection.
4. A raised sedimentation rate and pyrexia may both occur in an uncomplicated growth.

(b) *Local Signs*:

1. Atelectasis—either pneumonic, lobar or segmental.
2. Consolidation.
3. Unilateral wheeze from partial obstruction.
4. Super-added infection—lung abscess or pneumonia.
5. Sputum—mucoid if uncomplicated, blood-stained if ulcerative, purulent if infected.
6. Signs of pleural involvement, with a clear, blood-stained or purulent effusion.
7. Signs of chest-wall involvement, with a mass or tenderness.
8. Signs of mediastinal obstruction, e.g. oedema and cyanosis of the head and neck, dilatation of the veins of the chest, proptosis with cerebral oedema.
9. Evidence of nerve infiltration:
   (i) Involvement of the sympathetic, producing a Horner's syndrome, i.e. enophthalmos, narrowing of the palpebral fissure, constriction of the pupil and lowering of the intra-ocular tension.
   (ii) Hoarseness, from paralysis of the vocal cord.
   (iii) Evidence of phrenic nerve paralysis or irritation.
10. Hydrothorax from obstruction of the azygos vein.
11. Chylothorax from obstruction of the thoracic duct.
12. The manifold manifestations of visceral secondaries.

SPECIAL INVESTIGATIONS

A. *Radiological Investigation* (Table 8). X-rays should be taken in the presence of a fresh cough or change in character of a cough, or when symptoms and chest signs fail to respond to treatment. Swenson and Leaming[29] state, 'At the present time every relatively atypical lesion both as to roentgen appearance and clinical course must be considered malignant until proved otherwise. To-day the diagnosis of carinoma of the lung is a necessary differential consideration for almost every chest lesion seen in an individual over the age of 40. Carcinoma can at some time or other mimic radiologically almost every other chest condition known, and its dogmatic exclusion is dangerous.' X-rays are not diagnostic of carcinoma of the lung, in that they demonstrate not only primary lung pathology, but all the pathological complications. X-rays may therefore show the growth itself as a well-defined peripheral shadow (Figs. 1, 3) as an ill-defined hilar opacity (Fig. 12) or as a broadening of the mediastinum. They may show signs of pneumonic (Fig. 7), lobar (Figs. 8, 9) or segmental atelectasis (Fig. 10) in the presence of complete bronchial obstruction, or they may show localized obstructive emphysema as an early sign of partial obstruction, missed unless careful screening is employed or films are taken in deep inspiration and



expiration.[30] They may show an abscess cavity with a fluid level (Fig. 11), a massive pleural or interlobar effusion, a pericardial effusion, a raised immobile diaphragm, a broadened mediastinum from glandular involvement, and tracheal displacement in massive atelectasis. Very rarely the X-ray may be negative in the early stage and often the only indication might be an increase in the size and density of a hilar shadow—best confirmed by tomography (Fig. 12).

It is our experience that good tomography is a most valuable radiological aid in diagnosing carcinoma by demonstrating partial or complete obstruction (Fig. 13), narrowing of the bronchus, or peri-bronchial carcinomatous infiltration (by elucidating para-mediastinal shadows where there is super-imposition—Fig. 14), and in the differentiation of pyogenic and carcinomatous abscesses in which the internal wall is nodular.

Bronchograms may help to show a block in the more peripheral bronchioles, but should never precede bronchoscopy, as even in the presence of a block they give little indication of its nature. Screening of the chest is of great value in showing whether a raised diaphragm is paralysed from invasion of the phrenic nerve, by confirming obstructive localized emphysema and by excluding pulsation in unilateral hilar enlargement. A barium swallow may demonstrate mediastinal glandular involvement.

Angiocardiography. This we have used in 3 cases to exclude malignant hilar glands, which are evident by irregular pressure on the pulmonary artery. In one case this procedure differentiated a traumatic saccular aneurism of the aorta from a suspected carcinoma.

B. *Cytological*. Investigation of the sputum by the method used by Dudgeon of England in 1934 and more recently by Papanicolau in America is a most important corroborative finding, its accuracy depending on the experience of the pathologist.

Fig. 13. Tomogram showing complete obstruction of lower lobe bronchus due to adeno-carcinoma in a female whose straight film showed compensatory emphysema of the left upper lobe due to a collapsed lower lobe hidden behind the heart shadow.

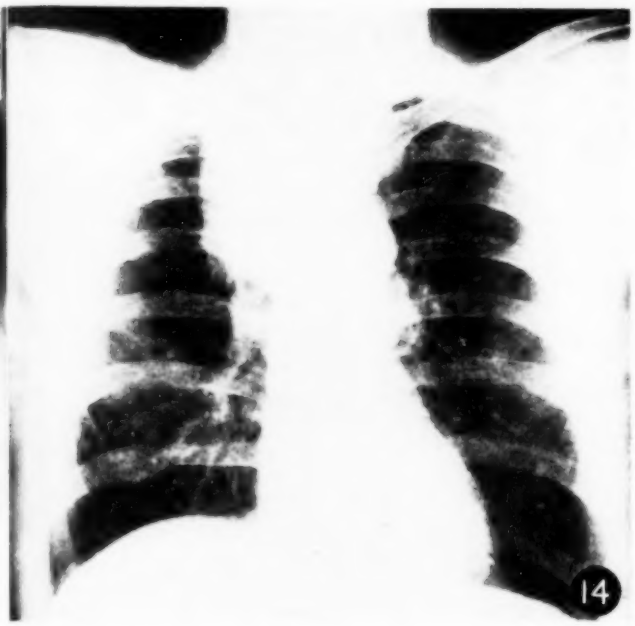


Fig. 14. This X-ray shows a para-mediastinal mass whose site was shown to be pulmonary on tomography. It is for this type of case that we to-day employ angio-cardiography.

C. *Bronchoscopy*. This diagnostic procedure is a most important investigation, and we have bronchoscoped 84 of our cases (Table 9). Every middle-aged patient who has an unproductive cough for which no obvious cause can be found, a lung abscess, an unresolved pneumonia, an unexplained shadow on routine chest film, or any of the X-ray variations described above should be bronchoscoped. Not only can the diagnosis be made in a very large proportion of cases but operability can also be estimated. Bronchial secretions can also be examined cytologically and this we have found increasingly more useful and accurate, with only one false positive in the last 60 examinations.

TABLE 9: BRONCHOSCOPIC DIAGNOSIS

Bronchoscopies performed			84
Growth visualized			32
No Biopsy	2		
Negative Biopsy	4		
Positive Biopsy	26		
Squamous	13		
Spheroidal	9		
Undifferentiated	3		
Oat-celled	1		
Carina—Broadened or and fixed			31
Bronchus abnormal			37
Complete stricture	2		
Partial stricture	1		
Narrowed by lymphatic block	17		
Sub-mucosal infiltration	17		

D. *Aspiration Biopsy* should never be performed except to confirm an inoperable peripheral growth.

E. *Exploratory Thoracotomy* should be undertaken in all cases where the diagnosis of bronchogenic carcinoma cannot be excluded by full investigations, provided the patient's general condition is satisfactory and there is no evidence of clinical inoperability. As long ago as 1912 Adler[31] write, 'When all the means of diagnosis fail, where there is a suspicion of a tumour, there should be—it is emphatically stated—as little hesitation in resorting to an exploratory thoracotomy as there is in now submitting to an exploratory laparotomy.' Swenson[29] states, 'In the case of suspected carcinoma there is no time to lose, not by virtue of their local growth but because of the grave early risk of distant metastases. Every idiopathic lung abscess or solid shadow over the age of 40 is a carcinoma till disproved by all methods of investigation, including thoractomy'. Clark[32] states, 'Thoracotomy is resorted to when diagnostic measures to establish, readily, an alternative diagnosis for an opacity have failed. The use of streptomycin to differentiate tubercle from carcinoma as a therapeutic procedure has little to commend it'. Overholt and Wilson[33] state, 'Exploratory thoracotomy in suspected cases of tumour is a procedure that is used too little and too late. Just as an abdominal exploration has been accepted in establishing the nature of unexplained abdominal masses, so should physicians develop a similar attitude towards exploratory thoracotomy'.

The advent of an increasing array of antibiotics is anything but an advantage from the diagnostic point of view to the patient with a primary neoplasm of the lung. It takes longer now for his doctor to give each agent a

thorough trial, lessening the infection and symptoms but allowing the underlying carcinoma full rein. Exploratory thoracotomy should be used, for to wait and see what develops in a patient who offers suggestive evidence of a pulmonary neoplasm is, in many instances, to let the opportunity for cure be forever lost.

TREATMENT

It is generally accepted that the only possibility of cure lies in extirpation of the growth—either by pneumonectomy or lobectomy. Many of the patients, however, are either inoperable when first seen or their general condition is such that operation is too hazardous. It is in these 2 latter groups of cases that much discussion has centred as to the usefulness of radiotherapy.

Radiotherapy

Shorvon [31] treated 111 cases by radiotherapy, of whom 77 died within 12 months and none survived 3 years.

In our experience in the large group of inoperable cases radiotherapy has a definite place and contributes definite, sometimes unexpected, results. There often results a diminution in size of the tumour, re-establishment of bronchial permeability, expansion of atelectatic lung with disappearance of pain and dyspnoea, improvement of the general condition, and a sensation of well-being. Fulton [15] states that 'radical surgical removal is the method of choice, but that the closest collaboration between the thoracic surgeon and the radiotherapist is essential in this field.' Sir Stanford Cade [35] states that the place of radiatherapy as a palliative measure is well established.

We have used X-ray therapy in 28 of our more recent cases. We have, in inoperable cases, inserted radium needles through a bronchoscope into the intraluminal portion of the growth, with rapid amelioration of the obstruction. In a recent case in which thoracotomy confirmed an inoperable growth in a youngish man radon seeds were inserted under Dr. M. Weinbren's supervision into the growth at operation. We have no personal experience of radio-active gold in recurrent malignant pleural effusions though it is said to be of considerable value.

CRITERIA FOR X-RAY THERAPY—MODIFIED FROM ARIET

Radical Treatment	*Palliative Treatment*	*Contra-indications*
Operable lesion, but patient refuses surgery.	Inoperable, with marked local symptoms.	Poor general condition and uncontrolled sepsis.
Operable lesion, but surgery contraindicated.	Inoperable lesions, with haemoptyses.	Large bloody pleural effusions.
Lesions involving carina or trachea.	Inoperable lesions, with general body reactions.	Active tuberculosis.
Post-operatively when cancer not completely eradicated.	Symptons due to pressure on the vena cava.	Previous course of of irradiation.
Pancaost - type tumour.	Symptoms due to metastases. Chest wall involvement.	Large hilar tumour.

Surgical Treatment

Gluck in 1881 showed that animals survived pneumonectomy. The first attempt in man was made in 1910 by Kummel. Ewarts Graham [39] in 1933 performed the first successful total pneumonectomy for carcinoma on a 48-year-old physician, who was alive and well in 1949.

For long the British school of thoracic surgeons have maintained that the only satisfactory form of operation for bronchogenic carcinoma is a pneumonectomy, but that there is a place for lobectomy we have no doubt. Lobectomy is advised by Effler,[37] who points out that in the presence of senile emphysema or silicosis pneumonectomy may be impossible from the point of view of respiratory survival; by Head [38] in the older age group; by Neuhof [26] for circumscribed tumours as a curative procedure; and by Churchill,[40] who states that 'lobectomy with resection of the draining mediastinal glands is indicated when there is diminished respiratory or cardiac reserve, questionable diagnosis, small peripheral localized lesion or when the tumour mass can be entirely removed for palliation.' He reports a 10% survival after 5 years following lobectomy compared to 12% after pneumonectomy.

By far the greater number of post-operative deaths are due to cardio-vascular accidents. Pleural infection has largely been obviated by antibiotics, which are used systemically in the pre- and post-operative phase as well as locally in the pleural cavity at the time of operation. Over-transfusion during operation must be guarded against and most cases of resection are swinging their legs over the side of the bed on their first post-operative day and sitting out of bed on the second day. In our own experience right pneumonectomy has been much more dangerous than a left-sided resection. Whether this is due to the fact that in this series most of the right-sided cases were in the early years, or rather because of mechanical factors, viz. the greater volume of the right lung and the greater mediastinal swing after operation with disturbance of the venous return, is uncertain. We have chosen to allow the space to fill with clot rather than to do an obliterative thoracoplasty. In one case the patient, having recovered uneventfully from his left pneumonectomy and having been discharged home, returned for a thoracoplasty from which he died—an autopsy failing to elucidate the cause. It should be realized that following resection almost all patients can lead a normal life, except that they cannot perform hard manual labour. Of those who survive operation a large number will be cured if resection has been undertaken early enough. Of the palliative resections many can expect to have their lives prolonged and all can earn their living in comfort and with little post-operative disability.

Contra-indications to Thoracotomy. Old age is not as important as the patient's general condition—especially of the cardio-vascular and respiratory systems. Our oldest pneumonectomy was in a male aged 70, who is still alive and well 30 months after left pneumonectomy. The presence of clinical metastases is a contra-indication, though Flavell [41] reports a man of 34 alive and well 20 months after removal of a single cerebral secondary and 18 months after successful left pneumonectomy. An unfavourable anatomical site of the tumour, viz. hilar

infiltrating. Pancoast's tumour or involvement of the parietes, renders resection unlikely, as does involvement of the phrenic nerve. The presence of severe thoracic-wall pain suggests inoperability. An haemorrhagic pleural effusion is considered by most an absolute contra-indication. Palliative resection is not contra-indicated by a clear pleural effusion, though in these circumstances Graham [12] states that he has no post-operative survivor over 6 months. One of our cases, however, survived 2 years after palliative pneumonectomy followed by X-ray therapy. Empyema is not necessarily a contra-indication. Bronchoscopic evidence of a paralysed cord, invasion of the paratracheal lymph glands, carinal broadening, and fixation and spread of the growth to involve an area of trachea too extensive for resection, are contra-indications.

Contra-indications to Resection at Thoracotomy. Evidence of mediastinal invasion, or the presence of extensive mediastinal glandular involvement, render resection ill-advised. Resection may be either curative when the disease is a localized process, or palliative when alleviation from pain, haemorrhage and suppuration might make a limited survival more tolerable. Brock [12] states, 'Those who think pneumonectomy is a drastic operation should remember that bronchogenic carcinoma itself is no gentle process but is a severe and drastic disease'.

The actual technique does not concern us here, but most surgeons favour the postero-lateral incision with resection of a rib. The individual ligation of the hilar structures is the method uniformly used and only the method of closure of the bronchus varies from surgeon to surgeon. We prefer a single layer of interrupted braided Swedish-wire sutures with pleuralization of the stump. We do not drain the pleural cavity.

PROGNOSIS

Pryce Thomas [35] states, 'The length of time between the onset of symptoms and a fatal issue is about 12 months. The average life, however, of a patient presenting himself with a carcinoma of the lung is about 3 months'. Neuhoff [30] bases the prognosis after resection on gross pathology, and finds that in the main-bronchus growths death occurs later from haematogenous matastases, and that in circumscribed growths recurrence is very frequent in the parietes. Ochsner [21] and Adams [43] base their prognosis on histological grounds and state (1) women have a better 5-year survival rate than men, (2) Broder's grade I has the lowest mortality rate in all types, and (3) epidermoid carcinoma has a 36% survival rate after 5 years, in adeno-carcinoma 63% survived a year but none 5 years, and in undifferentiated growths very few lasted a year. Of every 3 patients seen, one was clinically inoperable, one was inoperable at thoracotomy and one had a resectable lesion. Those operable cases surviving resection, with pre-operative symptoms of longer duration were necessarily of slow growing type and therefore had a better prognosis; e.g. Ariel [15] reports the average duration of symptoms before admission was 7.3 months, but in those resected it was 11.3 months.

OPERABILITY AND OPERATIVE MORTALITY

Ochsner [1] reports that up to 1940 there was a mortality of 75.8% with the tourniquet method. It should be noted that Graham [12] reduced his mortality from 50% to 8.4%, Reinhoff [15] from 27% to 21%, Allison [47] from 23% to 4%, Brock [12] from 29% in 1943 to 14% in 1949. In Brock's last 100 cases there was a mortality of 9% and in his last 40 cases 5%. This latter figure should be compared with his statement that his first 4 pneumonectomy patients died. To-day it is safe to say that the average mortality is less than 10%. We have had no deaths in our last consecutive 8 cases.

The 5-years survival rate of those surviving resection is according to Sellors [42] 16.2%, Adams [43] 35.2%, Mason [28] 12.1%, Churchill [50] 20% and Brock [28] 16.1%. Without lymph-node involvement the 5-year survival rate is as high as 40% and even if they are involved the rate according to Adams [43] is 16.6%. The gross survival rate of all cases seen is 7.7%,[21] which is higher than that for gastric carcinoma.

Survival rates estimated in years or months, although important, are not the only index. Such marked palliation of symptoms and improvement in well-being ensues upon resection that, even though life itself might not be prolonged, surgical intervention is well worth while. As Stammers [37] states, 'Life is quality, not quantity.'

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Author	*Year*	*Years Reviewed*	*No. of Cases*	*% of Cases Explored*	*Resections as % of* (a) *Cases*	(b) *Explorations*	*Operative Mortality*
American Authors							
Overholt[44])	1949	1932–43	234	24·7%	17·1%	70·7%	21·9%
Ochsner[21])	1948	1934–47	548	56%	35·4%	63·5%	23·1%
Burnett[1])	1949	1936–47	429	34·7%	15·6%	44·6%	27%
Churchill[50])	1950	1930–50	681	43·2%	25·1%	58·2%	22·8%
British Authors							
Brock[12])	1950	1941–48	800	21·5%	13·25%	61·6%	14%
Edwards[45])	1946		1,016	17·2%	11·3%	40·5%	35%
Mason[28])	1949	1939–49	1,000	35·3%	20·2%	57·2%	26·7%
Adler, D.	1953	1947–50	100	25%	14%	56·6%	28·5%

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HOUSING AND PARASITES

A COMPARISON OF SLUMS WITH SUB-ECONOMIC HOUSING

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The shacks of Cato Manor are Durban's most notorious slum. Immediately adjacent, the Durban City Corporation Council has erected a sub-economic housing scheme known as Chesterville. Cato Manor is about to be evacuated and it was felt that the opportunity was ripe to draw a comparison of the two areas to indicate what effect on parasitization might be expected from the change in housing conditions.

Table I shows the incidence of various intestinal parasites in these two areas. This is based on a single stool specimen from each subject. A direct examination and a zinc-sulphate flotation was done and, where the identity of an individual protozoan was in question, staining methods were utilized. The two areas were surveyed simultaneously to avoid any question of seasonal incidence.

Certain features spring to attention immediately. There is a marked difference in parasitization between the two areas, 92% of the inhabitants of Cato Manor showing one parasite or another on a single examination, whereas only 82% of the Chesterville people showed parasites. When this is broken down, it will be seen that this difference is due to metazoal infestations, 78% of the inhabitants of Cato Manor having one worm or another, but only 56% of the inhabitants of Chesterville being similarly infested. This is easily explained by the fact that protozoa reproduce in the bowel and so tend to maintain themselves, whereas most metazoa have to undergo a cycle outside the body and re-infestation is necessary to replace the worms which die. The main effect of the change is seen in the *Ascaris* and *Trichocephalus* rate, although there is also a change in the rate for *Taenia*. *Ascaris* and *Trichocephalus* are due to the ingestion of old faecal material, for the ova of both of these worms require to undergo development outside the body before they again become infective to man. *Taenia* is of course transmitted by the ingestion of infected meat. *Ascaris* and *Trichocephalus* being transmitted from infected soil, one hesitates to think what the soil in Cato Manor must be like. It will be interesting to see whether over the course of years the soil of Chesterville becomes similarly polluted and the incidence rises or whether owing to the disposal of the eggs down the sewers the incidence of these parasites will fall still further in that area.

The weight of parasitization also shows a drop between the two areas. Tables II and III show the weight of infestation and the number of parasite species per case. It will be seen that nearly 11% of the people in Cato Manor show 5 or more species of parasites per case

TABLE I: INTESTINAL PARASITES

Parasites	Cato Manor		Chesterville		P
	No.	%	No.	%	
Trichocephalus trichiura	308	60·3	203	39·5	0·01
Strongyloides stercoralis	5	1·0	1	0·2	0·06
Heterodera spp.	10	2·0	11	2·1	0·80
Hookworm spp.	29	5·7	23	4·5	0·42
Oxyuris vermicularis	3	0·6	1	0·2	0·30
Ascaris vermicularis	257	50·3	134	26·1	0·01
Schistosoma spp.	9	1·8	2	0·4	0·64
Hymenolepis spp.	3	0·6	2	0·4	0·65
Taenia spp.	56	11·0	27	5·3	0·01
E. histolytica	89	17·4	78	15·2	0·33
E. coli	281	55·0	271	52·7	0·47
E. nana	142	27·8	137	26·7	0·68
I. butschlii	62	12·1	50	9·7	0·22
C. mesnili	19	3·7	13	2·5	0·28
G. lamblia	19	3·7	25	4·9	0·37
Monads	9	1·8	3	0·6	0·08
Coccida	5	1·0	3	0·6	0·47
METAZOA	401	78·5	289	56·2	0·01
PROTOZOA	349	68·3	347	67·5	0·79
PARASITES	473	92·6	423	82·3	0·01

The figure *P* in the final column gives the probability that the differences observed may be due to chance. Where this probability is less than 0·01, the difference may be considered highly significant.

whereas the corresponding figure for Chesterville is only 2.5. The number of protozoal species per case in Cato Manor is 1.23 as against 1.12 in Chesterville, but for the metazoa the figures are 1.33 and 0.79, respectively.

There is no doubt that this very heavy parasite load must be a drain both on the health and economic potential of the population and the provision of better housing has an immediate effect on the metazoal population though the effect on the protozoal population is likely to be delayed.

TABLE II: WEIGHT OF INFESTATION

Parasite Species per Patient	Cato Manor		Chesterville	
	No.	%	No.	%
0	38	7·4	91	17·7
1	91	17·8	123	23·9
2	142	27·8	134	26·1
3	107	20·9	93	18·1
4	76	14·9	55	10·7
5	40	7·8	15	2·9
6	10	2·0	3	0·6
7	6	1·2	—	
8	1	0·2	—	

$X^2 = 52{\cdot}44$ $P = 0{\cdot}01$

TABLE III: SPECIES PER PATIENT

Species per Patient	Cato Manor	Chesterville
Protozoa	1·23	1·12
Metazoa	1·33	0·79
Parasite	2·56	1·91

SUMMARY

A slum, Cato Manor, and a municipal housing scheme, Chesterville, have been surveyed for intestinal parasites. The immediate effect of better conditions is not seen on the protozoal populations, but the metazoa are markedly affected.

Our thanks are due to the Council for Scientific and Industrial Research and the Natal Provincial Administration for their continued support and are particularly due to Miss E. Goddard and Mr. A. Dhlamini of the Health Education Section of the City Health Department of Durban, without whose assistance the collection of the specimens would have been impossible.

TUBERCULOSIS IN NON-EUROPEAN PSYCHOTICS

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The diagnosis of tuberculosis is a matter of special importance in mental hospitals for non-Europeans,[1, 2] mainly on account of the risks of spreading the disease but also because of the possible effects of convulsive therapy on the infection in individual cases.[3]

Dormer [4] published figures indicating that in 1950 the tuberculin sensitivity of adult South African non-Europeans was 80 to 90% as compared with 40% for Europeans in South Africa. Patients with schizophrenia and especially those with catatonic schizophrenia, are particularly prone to develop tuberculosis [5] and owing to their peculiar mental state, the infection may remain undetected for months; moreover as the habits of these patients are frequently most unhygienic it seems possible that living or working in wards for non-European psychotics holds a special risk of tuberculous infection.

During the last quarter of 1952, a tuberculosis survey in the form of mass radiography and tuberculin testing was carried out by the Union Health Departmeent at the Tower Hospital, Fort Beaufort, an institution which admits

only non-European patients from the eastern parts of the Cape Province, Transkei and Border.

The following tables reflect the results of the tuberculin tests performed. The patients have been grouped according to their year of admission with the expectation that this might indicate whether infection occurred more rapidly inside the mental hospital than outside. From these figures this would not appear to have been the case, for the tuberculin sensitivity rate amongst the most chronic patients differed only slightly from the rate amongst patients admitted during 1952.

Dormer [4] reports that the tuberculin-positive rate in 1926 was at least 60% amongst rural Natives, and in 1950 it was 80% for Natives aged 25 to 30 years and 90% for those of 30 years and over. Unfortunately there are too few patients left in this institution who were admitted before 1926 to make a comparison of the present tuberculin-sensitivity rate in such a group, with the rate outside institutions in 1926, of any value.

TUBERCULIN SENSITIVITY—MALES

Year of Admission	*Positive*	*Negative*	*Positive*	*Negative*
1952	146	24	86	14
1951	74	20	79	21
1950	54	8	87	13
1949	56	20	74	26
1948	56	7	89	11
1947 and earlier	477	100	83	17
Totals	863	179	83	17

TUBERCULIN SENSITIVITY—FEMALES

Year of Admission	*Positive*	*Negative*	*Percentage Positive*	*Percentage Negative*
1952	75	34	69	31
1951	54	17	76	24
1950	28	15	65	35
1949	38	10	79	21
1948	38	13	75	25
1947 and earlier	377	205	65	35
Totals	610	294	67	33

TUBERCULIN SENSITIVITY—MALES AND FEMALES

Year of Admission	*Positive*	*Negative*	*Percentage Positive*	*Percentage Negative*
1952	221	58	79	21
1951	128	38	77	23
1950	82	23	78	22
1949	94	30	76	24
1948	94	20	82	18
1947 and earlier	854	305	74	26
Totals	1,473	474	76	24

On mass-radiography, out of a total of 2,500 patients, 58 (2%) were found to have tuberculosis or 'suspected tuberculosis'; several patients previously diagnosed on clinical grounds as having tuberculosis, were found to have negative radiograms, yet at least one of them has since come to post-mortem and been found to have pulmonary tuberculosis; the introduction of mass-radiography into mental hospitals therefore has its dangers in that the medical and nursing staff may come to rely upon it to the exclusion of other methods.

In two wards accommodating about 500 male patients, all thought to be in fair health and many working in labouring spans, 9 cases were discovered on mass radiography to have pulmonary tuberculosis. They were thereupon examined clinically and compared with a group of 9 patients from the same wards and with the same age, mental state and duration of stay in hospital, but whose chest radiograms were reported to be negative. Using the item sheet and rating scale as recommended by Rees,[5] it was ensured that the psychiatric status of the two groups were comparable.

The following clinical features were studied in the examination of the two groups, and numerical values were assigned to each:

(1) Degree of vitamin-deficiency signs (mild, moderate, severe).
(2) Degree of clubbing of fingers (mild moderate, severe).
(3) Degree of asthenic physique (mild, moderate, severe).
(4) Degree of wasting (mild, moderate, severe).
(5) Mean pulse-rate over a period of 3 days.
(6) Weight-loss over the previous 6 months.
(7) Mean difference between the morning and evening temperatures for 3 days.
(8) Degree of positive clinical signs in the chest (mild, moderate, severe).
(9) Blood sedimentation rate (Westergren).

In the case of items 1, 2, 3, 4 and 8, values were assigned on the following basis:

No signs	0
Mild signs	1
Moderate signs	2
Severe signs	3

Sputum infectivity and coughing are not listed, as it was found that more than half of this group of patients never coughed and the remainder only did so very occasionally; in not one of the 9 cases was it ever found possible to collect a specimen of sputum.

Group 1 consisted of those 9 patients in whom pulmonary tuberculosis had been diagnosed by the radiologist on mass-radiography, and who had not been known to be ill, previous to this.

Group 2 consisted of those 9 patients who were used as controls, whose chest X-rays had been negative and who were similar as regards age, stay in hospital and mental state.

It was thought that a comparison of 2 such groups as regards the clinical features enumerated, would reveal to what extent different clinical examinations, exclusive of radiography, are of value in the diagnosis of tuberculosis amongst psychotics.

The following tables reflect the clinical features of the two groups in a manner suitable for statistical evaluation. By a simple comparison of the mean scores of the two

GROUP 1: MALE PSYCHOTICS WITH TUBERCULOSIS-POSITIVE CHEST-RADIOGRAMS

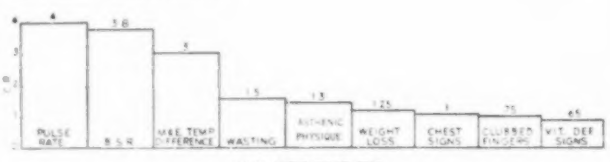
Patients	*Degree of Vit. Def.*	*Degree of Clubbing*	*Degree of Asthenic Physique*	*Degree of Wasting*	*Mean Pulse Rate*	*Weight Loss (lb.)*	*Mean M and E Temperature Diff.*	*Degree of Positive Chest Clinical Signs*	*B.S.R. (Westergren mm.)*
1	0	0	2	2	101·5	7	3	1	124
2	0	0	1	0	84·5	2	1	0	16
3	0	0	1	0	73·5	4	1	0	42
4	0	0	0	0	83·5	8	2	0	61
5	1	0	2	2	77·5	3	1	0	111
6	0	2	0	0	71	0	·4	0	96
7	0	0	1	0	83	0	2	0	12
8	0	0	1	0	91·5	4	2	0	76
9	1	0	2	2	73	4	·4	0	65
Total Score	2	2	10	6	749	32	12·8	1	603
Mean Score	·22	·22	1·1	·66	83	3·5	1·42	·11	67
Standard Deviation	$\sqrt{\frac{1·55}{9}}$	$\sqrt{\frac{6·725}{9}}$	$\sqrt{\frac{4·89}{9}}$	$\sqrt{\frac{8·004}{9}}$	$\sqrt{\frac{538·7}{9}}$	$\sqrt{\frac{60·25}{9}}$	$\sqrt{\frac{6·066}{9}}$	$\sqrt{\frac{·889}{9}}$	$\sqrt{\frac{12398}{9}}$

GROUP 2: MALE PSYCHOTICS WITH NEGATIVE CHEST-RADIOGRAMS

Patients	*Degree of Vit. Def.*	*Degree of Clubbing*	*Degree of Asthenic Physique*	*Degree of Wasting*	*Mean Pulse Rate*	*Weight Loss (lb.)*	*Mean M and E Temperature Diff.*	*Degree of Positive Chest Clinical Signs*	*B.S.R. (Westergren mm.)*
1	1	0	0	0	75	0	·5	0	9
2	0	0	1	0	70·5	0	·5	0	17
3	0	0	1	0	73·5	10	·4	0	60
4	0	0	0	0	70	0	·6	0	5
6	0	0	2	0	73·5	0	·7	0	10
7	0	0	2	1	71	0	·8	0	18
8	0	0	0	0	68	5	·8	0	7
9	0	0	0	0	74	0	·8	0	13
Total Score	1	0	6	1	651·5	15	5·4	0	144
Mean Score	·11	0	·66	·11	72	1·66	·6	0	16
Standard Deviation	$\sqrt{\frac{·887}{9}}$	$\sqrt{0}$	$\sqrt{\frac{6·00}{9}}$	$\sqrt{\frac{·887}{9}}$	$\sqrt{\frac{56·75}{9}}$	$\sqrt{\frac{102}{9}}$	$\sqrt{\frac{·28}{9}}$	$\sqrt{0}$	$\sqrt{\frac{2358}{9}}$

groups, it will be evident that signs of vitamin deficiency, such as phrynodermia, clubbing of fingers, asthenic physique,[3] wasting, and positive chest signs, were all more frequent in group 1 than in group 2. The mean pulse rate of group 1 was 83 as compared with 72 for group 2. The mean difference between morning and evening temperatures was 1.42° F for group 1 as compared with 0.6° F for group 2 and the mean B.S.R. was 67 for group 1 as compared with 16 for group 2.

Using the formula $CR = \frac{\text{Difference between means}}{\sqrt{\frac{SD_1^2}{N_1} + \frac{SD_2^2}{N_2}}}$ calculation of the critical ratio for each diagnostic feature indicates as shown in the diagram below, that the two groups differed significantly only as regards pulse rate, sedimentation rate, and difference between morning and evening temperatures.



SUMMARY AND CONCLUSIONS

1. Tuberculosis is an important problem in mental hospitals for non-Europeans.

2. In many cases mass-radiography alone does not seem adequate for the diagnosis of pulmonary tuberculosis in psychotics.

3. Clinical examination of the chest, using the stethoscope, is of very little value in the discovery of tuberculosis in most cases of psychosis.

4. In the diagnosis of tuberculosis, or of a state of health which may predispose towards the development of tuberculosis, the pulse rate, sedimentation rate and difference between morning and evening temperatures, are of value in psychotic patients.

I would like to express my thanks to Dr. de Kock, Superintendent, Tower Hospital, for helpful suggestions and for permission to submit this paper for publication, and to Dr. Dormer of King George V Hospital. My thanks are also due to Mr. J. Wilson of the nursing staff for his willing assistance.

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A CASE OF FANCONI'S ANAEMIA

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and

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In 1927 Fanconi [2] reported a severe refractory hyperchromic anaemia occurring in 3 brothers under 7 years of age, all fatal. This familial syndrome was characterized by bone-marrow hypoplasia, microcephaly, skin pigmentation and other abnormalities. Dacie and Gilpin [3] (1944) recorded a similar type of anaemia in 3 members of a family. One of these cases died after an illness lasting 4 years. This patient developed a dusky pigmentation of the skin and showed no growth in his last 2 years. The bone marrow was hypoplastic and a congenital kidney abnormality was present. Weil [7] (1938) in addition to recording a familial example of this syndrome also reported a sporadic case in a girl of 6 years, who suffered from severe hyperchromic anaemia, leucopenia and thrombopenia and also had a brownish pigmentation of the skin. Uehlinger [8] (1929) recorded a sporadic case in a boy of 7 years associated with developmental abnormalities, amongst which was an absence of the right kidney. Van Leeuwen [9] (1933) reported a sporadic case, in which splenectomy was performed without benefit. This case died after a 5-years' illness, at the age of 14 years, and showed, in addition to other developmental abnormalities, absence of the right kidney. All these cases presented many common features and the case to be recorded here is an example of this syndrome, unsuccessfully treated with adrenocorticotrophic hormone (ACTH).

Kunz [4] (1952) reported additional cases of this disease and emphasized a haemolytic component in the pathogenesis of the anaemia, which we have not found in our case.

CASE REPORT

F. J. J., a male child aged 6 years, was first admitted to hospital in January 1951. He was brought because of increasing weakness and pallor, which had started 9 months previously. There was no history of excessive bruising. He had had measles and scarlet fever earlier. There were 2 sisters who were quite well, as were the mother and father.

Examination. He was an extremely pale child, lying quietly in bed. His skin showed a dusky discolouration and there were some darker pigmented areas on his trunk. Microcephaly was not noted. No cyanosis or jaundice. Weight 34½ lb. Pulse rate 120 per minute. Temperature 98° F. No palpable lymph nodes. There was a systolic thrill and murmur over his praecordium, best heard in the 4th interspace to the left of the sternum. Nothing abnormal in the respiratory or central nervous systems and no evidence of hyperreflexia. Spleen and liver not palpable. The 5th finger on each hand was short and curved inwards, being similar in appearance to the abnormal 5th fingers associated with mongolism. There was left inguinal hernia. Genitalia normal.

Investigation and Progress. His blood group was AB and he was Rh positive. The Coombs' test and the Schumm's test were both negative. A blood count gave the following result:

Haemoglobin	5.2 gm. %
Colour index	1.05
Erythrocytes per c.mm.	1,610,000
Leucocytes per c.mm.	3,100
Neutrophils	29%
Monocytes	3%
Lymphocytes	68%

The platelets were reduced in number.

The red cells showed fairly marked anisocytosis. There was a severe normochromic anaemia and a leucopenia associated with a neutropenia and a relative lymphocytosis.

[He was given a transfusion of 500 c.c. whole blood, and a subsequent blood count 4 days later gave the following result:

Haemoglobin	12 gm. %
Colour index	0.95
Erythrocytes per c.mm.	4,110,000
Leucocytes per c.mm.	2,200
Neutrophils	27.5%
Monocytes	12.5%
Lymphocytes	59.5%
Basophils	0.5%

The platelets were markedly reduced to approximately 8,000 per c.mm.].

Haemolysis commenced in 0.44% saline and was complete in 0.32% saline.

The blood Wassermann test of the patient and his mother and father were all negative.

Radiological examination of his chest showed no abnormality. X-rays of his skeleton were normal except for the curved 5th fingers associated with a shortening of the middle phalanx.

Intravenous pyelography showed a unilateral left fused kidney and only one ureter entering the bladder. There was no evidence of a kidney on the right side. The blood urea was 25 mgm. per 100 c.c. Bone-marrow examination gave the following result:

Myeloblasts	1.6%
Promyelocytes	1.8%
Neutrophil myelocytes	8.6%
Eosinophil myelocytes	0.2%
Neutrophil metamyelocytes	8.0%
Eosinophil metamyelocytes	0.6%
Staff cells	14.8%
Neutrophil polymorphonuclears	2.8%
Eosinophil polymorphonuclears	0.8%
Large mononuclears	1.2%
Lymphocytes	19.4%
Pro-erythrocytes	0.4%
Erythroblasts	8.6%
Normoblasts	30.0%
Plasma cells	0.4%
Unidentified cells	0.8%

Total nucleated cell count 40,000 per c.mm. Megakaryocytes 5 per c.mm.

Myeloid lymphoid ratio 2:1.

Myeloid erythroid ratio 1:1.

The urine contained no albumin, sugar or acetone.

The prothrombin index was 100% and the serum bilirubin was less than 0.5 mgm. %.

The bleeding time was 4½ minutes and the coagulation time (Lee and White's method) was 2 minutes. Hess' capillary fragility test was negative. No cold agglutinins were present.

A skin biopsy histologically showed the presence of an increased amount of melanin pigment in all the layers of the epidermis. In addition the superficial portion of the dermis contained an increased amount of the pigment, some of which was lying free, whilst the remainder was in melanophores. The histological features suggested a disturbance in pigment metabolism. A second biopsy of skin from the chest showed histologically the presence of slight papillomatosis and a well-marked increase of melanin pigment in the epidermis and in the upper portion of the dermis. In the latter position the pigment was either free or contained in melanophages.

A further bone-marrow examination performed 1 year 9 months after the initial investigation showed this result:

Myelocytes	1.5%
Metamyelocytes	0.5%
Staff cells	1.0%
Neutrophils	3.5%
Eosinophils	0.5%
Monocytes	3.5%
Lymphocytes	71.0%
Erythrocytes	9.0%
Late normoblasts	9.5%

Total nucleated cell count: 12,000 per c.mm.

This result indicates a very hypoplastic marrow, the majority of cells present being lymphocytes and myelopoiesis very depressed. No megakaryocytes were observed. Compared to the previous bone-marrow examinations, there had been a steady progress of the hypoplasia.

The patient required blood transfusions at progressively shorter intervals and ultimately was given a course of corticotrophic hormone (ACTH) over 24 days in a daily dosage of 60 mgm. He showed no benefit from this and ultimately died at the age of 8 years, 2 years after first coming under observation.

DISCUSSION

Our patient, a boy aged 6 years, showed an increasing bone-marrow hypoplasia, anaemia, leucopenia and thrombopenia. The Coombs' and Schumm's tests were negative. He had skin pigmentation, an absent right kidney and clinical evidence of congenital heart disease suggesting a ventricular septal defect. A skin biopsy showed increased melanin in all the layers of the epidermis, and suggested a disturbance of pigment metabolism. There was no evidence of the familial occurrence of the disease (we did not examine the siblings) and his mental development appeared normal. There was no microcephaly. He was physically under-developed and his weight was at least 10 lb. under normal. His hands showed the abnormal 5th fingers, similar to those found in mongolism.

He required blood transfusions at progressively shorter intervals and a course of ACTH therapy was completely unsuccessful.

Kunz (1952) cites that Gasser and Holländer, in a personal communication to him, used cortisone without success in 2 patients with this disease. In our patient, death occurred 2 years after his first coming under observation.

SUMMARY

A sporadic case of Fanconi's anaemia in a boy of 6 years is reported. He had a hypoplastic bone-marrow, anaemia with leucopenia and thrombocytopenia. He had congenital abnormalities of his fingers and heart and an absent right kidney. There was a disturbance of pigment metabolism of his skin, with increased melanin deposition. ACTH therapy was unsuccessful. The literature is briefly reviewed.

We wish to thank Dr. K. F. Mills, Medical Superintendent, for permission to publish this case; also Dr. Seymour Heymann, Head of the Department of Paediatrics, for advice, as well as Dr. J. J. Theron for allowing us access to his patient.

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TREATMENT OF HEREDITARY HAEMORRHAGIC TELANGIECTASIA WITH OESTROGENIC HORMONE

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The object of this paper is to draw attention to a new method of treating hereditary haemorrhagic telangiectasia.

Treatment of this condition has in the past been very unsatisfactory. Local measures such as the application of caustic agents, injection of sclerosing solutions and electrocauterization can only be applicable to sites where the telangiectases are accessible. Moreover the telangiectases are usually so numerous that these measures are only feasible for a few of the larger and more troublesome lesions. X-ray therapy has not been a success. Of general measures hope was centred in the use of rutin (vitamin P). However it has proved disappointing.

The bleeding which may result from this condition is frequently serious and occasionally fatal. The importance of a form of therapy which may aid in controlling haemorrhage in inaccessible and vital sites such as the lung, gastro-intestinal tract, brain, etc. is obvious.

In August 1952 Koch *et al.*[1] reported the treatment of 5 cases of this condition. Three were menopausal females. They were treated with ethinyl oestradiol. In 2 of the women 0.25 mgm. per day was adequate. In the third 0.25 mgm. twice daily was required (the dose required for treating menopausal symptoms is usually 0.01 to 0.03 mgm. daily). Two of the women had had an hysterectomy. The third still had an intact uterus. She did not develop any uterine bleeding during 14 months on oestrogen therapy.

The remaining 2 cases were males aged 60 and 53 respectively. They both responded to oestrogen therapy, but after 3 weeks of this treatment loss of libido and gynaecomastia developed. A combination of 0.5 mgm. ethinyl oestradiol and 5.0 mgm. of methyl testosterone was then tried. This combination controlled the haemorrhagic tendency without the feminizing side-effects of the oestrogen given alone.

Oedema of the ankles may occur owing to water retention. This is a recognized action of big doses of oestrogen.[2] If troublesome it can be controlled by a low sodium diet or diuretics.

In the above cases it took 1 to 3 weeks for the bleeding to cease or to be reduced to only an occasional spotting. The nasal mucosa eventually changed from being pale and oedematous, with telangiectases and bloody crusting, to a pink glistening mucosa without crusting and with reduction, and in some cases disappearance, of the telangiectases. In one case troublesome gastro-intestinal bleeding, which had been going on for 2 years, also ceased.

In view of the above favourable report I decided to try oestrogen treatment in a case which had been under my care for 3 years.

CASE REPORT

The patient is a female aged 56. Her elder sister states that she remembers the patient suffering from bleeding episodes from the nose and mouth from the age of 4 if not earlier. The menarche at the age of 14 and the menopause at the age of 54 were not associated with any significant change in the severity of the haemorrhages. However she did notice that she was particularly inclined to bleed for a few days before and after menstruation.

Emotional upsets were certain to precipitate attacks of bleeding. On one occasion this stood her in good stead. She had applied for a telephone and mentioned her disability as a reason for being granted one. Her application was refused. She was greatly upset by this and demanded an interview with the telephone manager. At first the interview did not go well. Her indignation mounted, culminating in a pouring out of a large quantity of blood from her mouth and nose. The te'ephone manager, beside himself with distress and remorse, instantly granted her her telephone.

She bled mainly from her nose and tongue. Her nose presented the typical picture of a pale mucous membrane with scattered telangiectases, and was permanently crusted. Her tongue was a mass of telangiectases of varying sizes. She had only one lesion on the lips. It was cauterized several years ago and since then has given no further trouble. Six years ago bleeding started in a lesion under the nail of the middle finger of the left hand.

In 1951 she was found to be a diabetic (fasting blood sugar 210 mgm. %). She takes 24 units of P.Z. insulin daily.

Her mother suffered from telangiectases too. Her sister and 3 brothers were free; but one child of her sister, and a child of one of her brothers suffered haemorrhages. The patient's own son was severely afflicted, and her 3 daughters less seriously so.

She had had all sorts of treatment tried out on her since childhood. The most recent was rutin in big doses. Nothing had produced any benefit, except that the cauterization of the lip had stopped the bleeding at that site.

TREATMENT WITH ETHINYL OESTRADIOL

Treatment was instituted on 29 January 1953. Initially a very big dose, viz. 0.5 mgm. 3 times a day was used. This was gradually reduced. By May 1953 she was on only 0.025 mgm. 3 times a day.

Asked to give a description of her symptoms before and since treatment she made the following statement.

Nose. Before treatment the nasal cavity was always crusted. She was never free of slight spotting and could never blow her nose without producing blood. Laughing also caused bleeding. Free bleeding used to occur spontaneously on an average of 3 or 4 times a week. Two face towels were usually necessary to absorb the blood on such occasions. She had learned to treat herself with adrenaline plugging.

Since treatment she had experienced no bleeding even

when blowing her nose, except for slight spotting on two occasions. The crusting in her nose had disappeared.

Tongue. She used to bleed from the telangiectases on eating many kinds of food but particularly toast and pineapple.

Since treatment she can eat these things with impunity. The telangiectases are diminishing in size and she is no longer conscious of them. 'They don't get in the way as they used to'.

Finger. The bleeding from the telangiectatic lesion under the nail of the middle finger of the left hand has not thus far decreased in frequency but is greatly reduced in amount.

Fauces. She states that before treatment she cannot remember waking in the morning without having to clear her throat of a greater or lesser amount of blood. She does not know whether this emanated from her nose or mouth. Since treatment she is free of this.

Emotion. Emotional upsets always precipitated bleeding. During the past few months she has had an exceptional run of personal and family worries. In spite of this the above improvements occurred.

Regression on Temporary Cessation of Treatment. After being on ethinyl oestradiol for 2 months she stopped taking the tablets. She developed an oestrin-withdrawal bleeding from the uterus 9 days later. Three days before the uterine bleeding she had a quite severe relapse of bleeding from her tongue and nose. On resuming ethinyl oestradiol therapy the bleeding once more ceased except that on 2 occasions at monthly intervals a little spotting from the nose occurred.

Effect on Glycosuria. She noticed that her urine tests became considerably worse when she went on ethinyl oestradiol and she has been compelled to increase the dosage from 20 units P.Z.I. daily to 26 units and the diabetes is still not as satisfactorily controlled. However she rightly wonders whether the mental worry she has been having recently might not be playing a part in causing the deterioration.

SUMMARY

The satisfactory response to oestrogen therapy of a female aged 56 with hereditary haemorrhagic telangiectasia is described.

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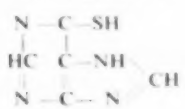
NEW PREPARATIONS AND APPLIANCES

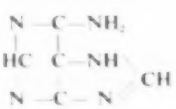
6-MERCAPTONPURINE

This drug is suggested for the treatment of leukemia and is at present in the experimental stage. Its chemical structure and that of Adenine are as follows:

6-Mercaptonpurine



Adenine



6-Mercaptonpurine is an analogue of Adenine, which is an essential growth factor in cell metabolism. 6-Mercaptonpurine may therefore act as a metabolic antagonist to Adenine and thereby produce decrease in cell multiplication. It may therefore be beneficial in conditions in which there is considerable cellular activity, e.g. in malignant states including the leukemias.

The drug originates from the Wellcome Research Laboratories.

ASSOCIATION NEWS : VERENIGINGSNUUS

SOUTHERN TRANSVAAL BRANCH

At a meeting of General Practitioners' Sub-Group held at Medical House, Johannesburg, on 26 August, at 8.15 p.m., there were 35 general practitioners present. Dr. C. Cairncross was in the Chair. Dr. B. Wilson is the Secretary.

The Chairman gave a brief review of matters affecting general practitioners since the last general meeting. Those present at the last meeting had been informed that Dr. Shapiro intended to challenge the legality of the Specialists' Register. Individual doctors, in their private capacity, had voluntarily offered and paid a substantial amount towards possible costs. A Sub-Committee had been formed and they had collected a further amount from medical practitioners throughout the Union, a few specialists contributing as well. Much time and energy had been devoted to this case by Dr. W. Schepers.

The Chairman congratulated Dr. Shapiro on his successful action in the Supreme Court and extended to him the thanks of the meeting. Medical Council had lost the case and had been ordered to pay the costs, and there had been an interdict from using funds in connection with the Specialists' Register. Notice of Appeal had been given. It was surmised that Medical Council would attempt to legalize this matter at the first opportunity. The first reading of the enabling Bill had been passed some time ago. In the interim the Steering Committee had held several meetings to devise ways and means of forestalling this Bill, for example lobbying Parliament had been discussed.

The National General Practitioners' Group had then asked Federal Council for a referendum. This had been sent to all members of the medical profession but in the opinion of many the wording of the questionnaire was not sufficiently explicit. It was felt that it should have been worded 'Do you favour a system of Consultants in place of the Specialists' Register?' In all probability many votes would be lost on account of the wording. It was decided that 2 members of the Steering Committee should go to Cape Town to lobby Parliament and seek an interview with the Minister of Health.

Customary Fees: This matter had been fully discussed at 2 previous meetings. After the second meeting Branch Council had been advised of the scale of fees. Some months later the Chairman had been requested to meet Branch Council's Sub-Committee to discuss this matter, but the Chairman had

pointed out that he had no authority to make any alterations to the scale of fees decided on by the Sub-Group.

It was pointed out to the meeting that the question of fees had been under discussion for the past 2 years, during which period costs had gone up and no finality had been reached. It was decided that the matter should be discussed at a later stage of the meeting.

College of Physicians and Surgeons: There had been much discussion on this subject, both by the Steering Committee and the Branch, and for the information of the general practitioners who had been unable to attend the Association Branch meetings the Chairman referred to the following points:

1. Right of Voting: The Federal Council had accepted and the College Committee agrees, that all Founders are entitled to take part in discussions and vote on all matters which may be raised at the Inaugural Meeting, this including the election of the first Council.

2. Voting by proxy will be permitted.

3. Amendments to Draft Constitution. In clarification of paragraph 1 of page 2 of the Memorandum *in re* proposed College of Physicians and Surgeons of South Africa, June 1953, it is accepted that:

All Founders (subscribers) have the right to move any amendments to the Constitution at the Inaugural Meeting, provided due notice of motion has been given to the College Committee.

All such notices of motion will be circularized to all subscribers before the holding of the Inaugural Meeting.

Any resolutions passed at the Inaugural Meeting will be referred to the first Council, as a directive to that Council for co-ordination and implementation as far as possible.

This first Council may not, on its own, make any amendments or modifications which are matters of principle or of a radical character without such changes having received prior consideration and acceptance by the subscribers.

4. Permissibility of withdrawal: It is agreed that each subscriber has the right to withdraw his application for membership of the proposed College and to have his subscription refunded if the constitution finally agreed upon is not acceptable to him (naturally, some time limit will have to be laid down).

5. Closing date for applications. It was decided to extend the closing date for sending in applications for membership until the end of November 1953.

Other Matters: The Chairman then asked the meeting if anything else had to be discussed on items affecting general practitioners since the last meeting.

Dr. Vercueil said that he felt the fees submitted by this Sub-Group as customary fees were the fees the general practitioners would like to charge and not their customary fees. Dr. Cairncross replied that the customary fees submitted to Branch Council were decided on by a very well attended meeting. There was considerable discussion on this question and in view of the fact that the matter had been referred back to the Sub-Group for consideration a resolution was put forward, after several of the General Practitioners present had advised what their customary fees were:

Proposed by Dr. Schwartz and seconded by Dr. Davies that the following customary fees should be submitted for the Johannesburg Division of the Southern Transvaal Branch:

Day consultations and visits—up to £1 5s.

Night visits (7 p.m. to 7 a.m.)—up to £2 2s.

In exceptional circumstances—reduced fees.

In exceptional circumstances—right reserved to increase fees.

Addendum: The question of increasing for week-end and holiday visits was under consideration.

This was agreed unanimously.

Specialists' Register: Dr. Bensusan asked what the Sub-Group had done in this matter since Dr. Shapiro's case and Dr. Cairncross advised that this was a Group matter and had no relation to the Sub-Group. After discussion it was agreed that some action should be taken and that a proposal should go to the Steering Committee that a memorandum on this question should be sent to all Members of Parliament.

On the question of the plebiscite Dr. Wilson advised that, in his personal capacity, he had written to Dr. Tonkin and expressed the opinion that he considered the questionnaire most unsatisfactory. Dr. Van Niekerk and Dr. Turton had endeavoured to make arrangements to see the Acting Minister of Health, but he had refused to see them or accept a memorandum. Telegrams had been sent to all sub-groups urging them to say 'No' to the referendum. The Steering Committee had done all within its powers in this matter. Dr. Wilson had personally written to 2 Members of Parliament who were medical men in an endeavour to get their point of view and had offered to give them any information they required. The probability was that the Bill would not come up this session.

It was agreed that a resolution should go forward to the Steering Committee urging an urgent meeting of the Executive of the National Group—all the chairmen and, if possible, secretaries of the sub-groups—to take place in Johannesburg. A special action committee should be formed to deal with the matter, their recommendations to go to the Steering Committee. This was proposed by Dr. Bessarabia, seconded and unanimously agreed.

In regard to the plebiscite, it was agreed that the one constructive thing to do would be to send a resolution direct to Federal Council protesting against the wording of the plebiscite. Group medical practice would be precluded as long as there was a Specialists' Register.

College of General Practice: The Secretary reported that when he was overseas recently he took the opportunity of calling officially on the Royal College of Surgeons to ascertain the position and also to find out about the new College of General Practice. He had contacted Dr. John Hunt, the Honorary Secretary of the College. The long discussion had been most stimulating and Dr. Wilson read a letter he had received from Dr. Hunt. The matter would have to be taken to the National Group for discussion, but in view of the great importance of this matter at this time on account of the College of Physicians and Surgeons, it would be well for the general practitioners in this country to consider the full question of a College of General Practice in an affiliated form to the College of General Practice in the United Kingdom. The feeling of the meeting was that this College of General Practice had a lot to commend it and it was decided to bring it up to the National Group as soon as possible.

College of Physicians and Surgeons: It was considered necessary that another general meeting of the Sub-Group should be called to go into the question of the general practitioners' attitude to the proposed college. Dr. Schwartz said he felt that the general practitioners should be encouraged to become members.

National General Practitioners' Group: The Secretary reported that 7 sub-groups had been formed, which represented all the active branches of the Medical Association. There could be no annual general meeting until the next Congress and the present Steering Committee would continue until then. Dr. Cairncross pointed out that it was extremely difficult to get large meetings of general practitioners. Things were going slowly but in time all would be well.

The Steering Committee had decided that the National Group subscription should be 5s. but it was suggested that it should be put to the Steering Committee that this should be £1 as originally decided. Dr. Baranov said she felt that general practitioners would resent paying 2 subscriptions to the same thing. There should be one subcription to the National Group of which each Branch would get a proportionate share. In moving this, Dr. Baranov stated she did not approve of Branches sending in accounts for payment, as some would be more extravagant than others. A proportion of the subscription to the National Group should be remitted to the sub-groups for their activities, the remainder to be kept by the National Group for matters affecting the entire profession. This was seconded by Dr. Meyerson and agreed unanimously. Dr. Schwartz proposed that the Sub-Group should lend the National Group £50 until the financial side was settled. This was passed.

Medical Aid Fees: Dr. Cairncross reported that a certain general practitioner had been very insistent that this matter should be on the Agenda but he was not present at the meeting. He had wanted representation made with regard to night visits, which were still at the pre-war figure of £1 1s. It was agreed to leave this point until he was present.

The National Medical Aid Society was discussed. Dr.

Baranov advised that a special committee had been formed to watch that the average income is not exceeded. Dr. Shapiro pointed out that the National Medical Aid were inviting all and sundry to join, and the word of the Society had to be taken that all incomes were within the limits. It was felt that urgent representation should be made to Federal Council, asking for a report on how this Society is organized. Dr. Baranov advised that Central Contract Practice Committee had already recommended that this matter be looked into.

With regard to organized Medical Aid Societies, Dr. Shapiro reported that the rules of the Association provide a sliding scale of contributions for the upper income group. The National Medical Aid was different.

The question of military pensioners was discussed and it was proposed by Dr. Bensusan that this branch should urge Federal Council to take cognizance of the low rate of only 7s. 6d. paid for pensioners. This was seconded by Dr. Kuper.

The meeting ended at 11.45 p.m.

PASSING EVENTS

Mr. W. T. Ross, Orthopaedic Surgeon, is moving his consulting rooms to 168 Lister Building, Jeppe Street, Johannesburg, as from 1 October. Telephone: 23-2467.

* * * *

It is notified that Gearing's Sick and Benefit Fund, Cape Town, ceased to exist from 30 September 1953.

ELECTION OF MEMBERS OF MEDICAL COUNCIL

Under the Medical, Dental and Pharmacy Act an election of 10 medical and 4 dental members of the South African Medical and Dental Council to serve during the period expiring on 31 December 1958 is about to be held.

Every nomination paper must reach the returning officer, William Impey, P.O. Box 205, or 310 Maritime House, 155 Pretorious Street, Pretoria, not later than 4 p.m. on 16 October 1953.

UNION OF SOUTH AFRICA : DEPARTMENT OF HEALTH

BULLETIN NO. 37 OF 1953, FOR THE 7 DAYS ENDED THURSDAY 10 SEPTEMBER 1953

PLAGUE : SMALLPOX : TYPHUS FEVER

Nil.

EPIDEMIC DISEASES IN OTHER COUNTRIES

At date of latest available information there existed:

Plague: Nil.

Cholera in Bombay, Calcutta (India); Dacca, Chalna (Pakistan).

Smallpox in Bombay, Calcutta, Cochin, Delhi (India); Lahore (Pakistan); Saigon-Cholon (Vietnam); Phnom-Penh (Cambodia).

Typhus Fever in Cairo (Egypt).

SCHOLARSHIPS IN AID OF SCIENTIFIC RESEARCH

The Council of the British Medical Association is prepared to receive applications for Research Scholarships, as follows:

An Ernest Hart Memorial Scholarship, of the value of £250.

A Walter Dixon Scholarship, of the value of £250.

These Scholarships are given to candidates recommended by the Science Committee of the British Medical Association as qualified to undertake research in any subject (including State medicine) relating to the causation, prevention or treatment of disease.

Each Scholarship is tenable for one year, commencing on 1 October 1954. A current Scholar may apply to be reappointed for a further year. No Scholarship can be held for more than 3 years. A Scholar is not necessarily required to devote the whole of his or her time to the work of research, but may be a member of H.M. Forces or may hold a junior appointment at the University, Medical School or Hospital, provided the duties of such appointment will not, in the opinion of the Science Committee, interfere with his or her work as a Scholar.

Applications for Scholarships must be made not later than 1 March 1954, on the prescribed form, a copy of which will be supplied on application by Dr. A. Macrae, Secretary, British Medical Association House, Tavistock Square, London, W.C.1.

Applicants are required to furnish the names of three referees who are competent to speak as to their capacity for the research contemplated.

DR. DONALD HUNTER

A Dinner in honour of Dr. Donald Hunter, M.D., F.R.C.P., Physician to the London Hospital, who is in the Union as the guest of the Students' Visiting Lecturer Fund of the University of Cape Town, will be held in the Civil Service Club, Church Square, Cape Town, on Thursday, 8 October 1953. Graduates of the London Hospital who wish to attend should communicate with Dr. W. James Latham, 702 African Life Building, 85 St. George's Street, Cape Town.

THE DR. H. A. MOFFAT MEMORIAL FUND

A fund has been opened in memory of the late Colonel Henry Alford Moffat, *O.B.E., D.S.O.*, B.A., F.R.C.S., LL.D. (Cape Town), D.C.L. (Rand).

Dr. Moffat was one of South Africa's greatest medical sons. He was born at Kuruman, the great-nephew of Dr. Livingstone, and after qualifying in London he settled in Cape Town about the end of the nineteenth century.

Moffat had great experience of active military service, having having served in 4 wars. In the Second Great War he came back from retirement to take command of a military hospital. He played a leading part in the affairs of the profession both in the Association and on the Medical Council. Few have devoted their lives to the service of humanity with less self-seeking. His example was a shining light to the profession, and there are many whose lives have been enriched by his inspiration.

It is intended to devote the Memorial Fund to the provision of prizes or scholarships for students of medicine.

The Fund will be administered by the Association. It has been opened with a donation from Dr. Jack Abelsohn, who first suggested this form of memorial. Contributions are now solicited. They should be addressed to the Secretary of the Medical Association of South Africa, P.O. Box 643, Cape Town.

REVIEWS OF BOOKS

TEXT-BOOK ON DERMATOLOGY

Dermatologic Formulary, Revised 1953. Edited by Frances Pascher, M.D. (Pp. 150 + x. $3.00). New York: Paul B. Hoeber, Inc. 1953.

Contents: 1. Topical Remedies. 2. Systemic Therapy: A. Medicaments for Oral Use. B. Medicaments for Parenteral Use. 3. Articles for Clinic Use. Index.

Modern text-books on dermatology are prone to give very scant attention to practical details of treatment. The *Dermatologic Formulary* of Dr. F. Pascher will therefore be of great value to the profession.

The author has given us well-thought-out prescriptions for practically every dermatological condition. Furthermore he has been careful to give the contra-indications as well as side-effects in topical and general treatment. I am glad to see that chemical sensitivity is greatly stressed.

I can thoroughly recommend this book as a basis of treatment for the general practitioner as well as the dermatologist.

NEW CONCEPTS OF HYPNOSIS

New Concepts of Hypnosis. By Bernard C. Gindes, M.D. (Pp. 272 + xvi. 15s.) London: George Allen and Unwin Ltd. 1953.

Contents: Introduction. 1. Why Hypnosis? 2. The History of Hypnotism. 3. Theoretical Aspects. 4. Mechanisms of Hypnosis. 5. Characteristics of Hypnosis. 6. Necessary Considerations in Hypnotic Procedure. 7. Objective Methods of Hypnotic Induction. 8. Subjective Methods of Hypnotic Induction. 9. Suggestive Therapy. 10. Hypno-Analysis and Hypno-Synthesis. Appendix.

Dr. Gindes has written a book on Hypnosis which cannot be said to 'fill a gap'—indeed one would sincerely wish for a gap in the mounting pile of popular books on this subject. His book, though no better, is no worse than most of its fellows but it is marred by colloquialisms such as 'these chaps' when patients are being referred to, and by cosy confidences and racy asides about various Joes and Jims and Janes in illustrations of points concerning the histories and the treatment of patients. If this book is intended for 'medical and psychological fields' as is implied in the cover 'blurb' then one can only conclude that the publishers must have a very naive assortment of professional friends. For the layman some of the cases may have a dramatic attraction, especially as the author himself figures largely as the successful hypnotist, but for the medical man there seems to be little to justify the claims made that the book relates hypnotherapy to psychoanalysis, and there is nothing at all of a scientific nature in the observations made on subjects and their specific reactions. There are however interesting historical snapshots on the early hypnotists and the book reads easily. For those who like their information at the level of the popular Digest type of article this volume may be recommended.

SYMPOSIUM ON THE SPINAL CORD

The Spinal Cord. A Ciba Foundation Symposium. Edited by J. L. Malcolm, M.B., Ch.B., B.Med.Sc., J. A. B. Gray, M.A., M.B., B.Chir., G. E. W. Wolstenholme, *O.B.E.*, M.A., M.B., B.Ch., assisted by Jessie S. Freeman, M.B., B.S., D.P.H. (Pp. 300, with figures. 30s.) London: J. and A. Churchill, Ltd. 1953.

Contents: Vice-Chairman's Opening Remarks. 1. A Contribution from the Study of Cords of Lower Forms. Discussion. 2. Some Factors Regulating the Form and Organization of the Motoneurones of the Spinal Cord. Discussion. 3. The Motor Cell Groupings of the Spinal Cord. Discussion. 4. Analysis of the Spinal Cord Potentials in Leads from the Cord Dorsum. Discussion. 5. A Comparison of the Monosynaptic and Polysynaptic Reflex Responses of the Spinal Cord under a Variety of Influences. Discussion. 6. Strychnine Tetanus of the Spinal Cord. Discussion. 7. Some Observations on Dorsal Root Potentials. Discussion. 8. Some Features of the Spinal Reflex Connections of Splanchnic Afferent Fibres. Discussion. 9. Some Effects of Repetitive Stimulation of Afferents on Reflex Conduction. Discussion. 10. Antidromic Propagation of Impulses into Motoneurones. Discussion. 11. Conduction of Impulses in the Neurones of the Oculomotor Nucleus. Discussion. 12. Disynaptic Reflex Linkage Between Certain Muscles of the Hind Limb. Discussion. 13. Some Effects of anticholinesterase on the Spinal Cord of the Cat. Discussion. 14. Local Application of Substances to the Spinal Cord. Discussion. 15. The Effects of Close Arterial Injections of Acetylcholine and anticholinesterase on the Activity of the Cervical Cord of the Cat. Discussion. 16. The Action of d-Tubocurarine and Strychnine on the Spinal Cord of the Cat. Discussion. 17. Speculations on the Servo-Control of Movement. Discussion. 18. Specific Skin Areas for Excitation and Inhibition of Hind Limb Reflexes. Discussion. 19. Afferent Nervous Connections of the Lateral Cervical Nucleus. Discussion. 20. Nerve Conduction in Poliomyelitis. Discussion. 21. Vice-Chairman's Closing Remarks.

One may say of this book, with Hamlet, that it is 'caviare to the general,' and too advanced to be fully understood by those not closely identified with this field of physiology. The Ciba Foundation has already sponsored several colloquia in medical fields and opportunity was taken of the presence of Professor J. C. Eccles and several leading foreign neurologists in England to hold this symposium. The list of those taking part leads to an expectation of a high standard of discussion, and in this one is not disappointed. The papers were deliberately limited to the central nervous system below the medulla oblongata (but in spite of this Dr. Lorente de Nó was allowed to speak on conduction in the oculomotor nucleus).

The list of contents cited above gives a good idea of the breadth of the field covered, starting on the anatomical side, going next to the purely physiological and pharmacological aspects and ending on a clinical note. The papers which particularly appealed to us were those by Bernhard on spinal-cord potentials, Eccles and his colleagues on antidromic propagation of impulses into motoneurones and Lorente de Nó on conduction in the oculomotor nucleus. Merton's interesting paper on a servo-control of movement was followed by a long discussion and in our opinion gave a most convincing account of the relationship between the intrafusal fibres and those of the main muscle. In the final paper on nerve conduction in poliomyelitis Brooks concluded that anterior-horn-cell destruction alone could not account for all the clinical features which occur. Eccles' recent conversion to the belief that synaptic conduction at motoneurones is caused by a chemical transmitter provoked a long discussion. Evidence in favour of this theory has been slowly piling up and it was a pity that Dr. Nachmansohn was not present, as the discussions might then have been really lively!

This is a useful summary of the views of leading workers in this field and should be read by all students of advanced physiology. Those who deplore specialization within subjects will realize, after perusing this symposium, how much such a trend is unavoidable.

UP-TO-DATE LABORATORY MANUAL

Clinical Diagnosis by Laboratory Methods. By James Campbell Todd, Ph.B., M.D., Arthur Hawley Sanford, A.M., M.D., and Benjamin B. Wells, M.D., Ph.D. (Pp. 998, with 403 figures, many in colour. Twelfth Edition. £3 12s. 3d.) Philadelphia and London: W. B. Saunders Company. 1953.

Contents: I. The Microscope. II. The Sputum. 1. Macroscopic Examination. 2. Microscopic Examination. 3. The Sputum in Disease. III. The Urine. 1. Preliminary Consideration. 2. General Characteristics. 3. Chemical Examination. 4. Microscopic Examination. 5. Tests for Renal Function. 6. The Urine in Disease. IV. The Blood. 1. Preliminary Considerations. 2. Methods of Obtaining Blood. 3. Coagulation of Blood. 4. The Erythrocytes. 5. The Leukocytes. 6. Thrombocytes. 7. Examination of Stained Blood. 8. Hematopoiesis. 9. Examination of Bone Marrow. 10. Vital Staining. 11. Hematologic Changes in Disease. 12. Tests for the Recognition of Blood. 13. Blood Groups. 14. Tests for Amyloidosis. V. Clinical Chemistry. 1. Analytical Methods. 2. Obtaining Blood for Chemical Examination. 3. Nitrogenous Constituents of the Blood. 4. Lipids. 5. Carbohydrates. 6. Inorganic Substances. 7. The Liver. 8. Pancreatic Enzymes. 9. Drugs and Toxic Substances in the Blood. 10. Vitamins. 11. Hormones. VI. Gastric and Duodenal Contents. 1. Examination of Gastric Contents. 2. The Gastric Contents in Disease. 3. Examination of Duodenal Contents. 4. Examination of Fresh Bile. VII. The Feces. 1. Macroscopic Examination. 2. Chemical Examination. 3. Microscopic Examination. 4. Functional Tests. VIII. Animal Parasites. 1. Phylum Protozoa. 2. Parasites of Undetermined Nature. 3. Phylum Nemathelminthes (Round Worms). 4. Phylum Platyhelminthes (Flat Worms). 5. Phylum Arthropoda. IX. Pus, Puncture Fluids and Animal Inoculation. 1. Peritoneal, Pleural and Pericardial Fluids. 2. Cerebrospinal Fluid. 3. Animal Inoculation. X. The Nose, Mouth, Pharynx, Ear and Eye. 1. The Nose, Mouth and Pharynx. 2. The Ear. 3. The Eye. XI. Viruses and Rickettsias. 1. Viruses. 2. Rickettsias. XII. Bacteriologic Methods. 1. Apparatus. 2. Sterilization. 3. Preparation of Culture Tubes. 4. Culture Mediums. 5. Methods of Studying Bacteria. 6. Characteristics of Important Bacteria. XIII. Milk and Water. 1. Milk. 2. Water. XIV. Introduction to Serodiagnostic Methods. 1. Immune Bodies of the First Order. 2. Immune Bodies of the Second Order. 3. Immune Bodies of the Third Order. 4. Reactions Based on Immune Bodies of the Second Order. 5. Reactions Based on Immune Bodies of the Third Order. 6. Zone Reactions. XV. Serologic Tests for Syphilis. 1. General Information. 2. Kline Tests. 3. Mazzini Tests. 4. Rein-Bossak Tests. 5. VDRL Tests. 6. Kahn Tests. 7. Hinton Tests. 8. Eagle Tests. 9. Kolmer Tests. Appendix. XVI. Serologic Tests for Diseases Other Than Syphilis. 1. Autohemolysis. 2. Heterophil Antibody. 3. Cold Hemagglutination. 4. The Antiglobulin Test (Coombs Test). 5. Complement-Fixation Tests. XVII. Medical Mycology. 1. Terminology Used in Mycology. 2. Superficial Mycoses. 3. Intermediate Mycoses. 4. Deep-Seated Mycoses. XVIII. Vaccines. 1. Preparation of Vaccines. 2. Administration of Vaccines. 3. Therapeutic Indications. XIX. Antibiotics. 1. Penicillin. 2. Streptomycin. XX. Biologic Skin Tests. 1. Tuberculin Tests. 2. Coccidioidin Test. 3. Histoplasmin Test. 4. Brucellergin Reaction. 5. Frei Test For Lymphopathia Venereum. 6. Test for Trichinosis. 6. Casoni's Cutireaction for Echinococcosis. 7. Dick Test for Immunity to Scarlet Fever. 8. Schick Test for Diphtheria. Tests for Hypersusceptibility. XXI. Semen and Hormones. 1. Semen. 2. Hormones. Appendix. An Index-Outline of Laboratory Findings in Important Diseases. Index.

We welcome the 12th edition of Todd and Sanford, to which the name of Wells has been added since the death of the senior author. When first published in 1909 this book had few competitors, and its continued success to-day in the face of a multitude of similar laboratory manuals indicates that it is fulfilling a want.

A possible reason why so many books of this type are published, bought and consulted is that while a similar field is covered, the relative space given to the different topics is

variable. In this volume serological tests for syphilis are given in great detail, both as regards the number of tests, about 20 including variations, and the actual performing of them. Over 100 pages are devoted to this, mainly details for technicians, but there is unfortunately no advice as to which tests are recommended. Viruses, on the other hand, are discussed in 8 pages, and morbid anatomy and histology are omitted.

This book was completely revised in the previous edition, and no drastic alterations have been made in this, but most chapters contain some new material or have been otherwise brought up to date. Each chapter is followed by a list of references, mainly to recent work in the English language. The production conforms to Saunders' high standard, and it can be recommended as a working manual of laboratory medicine.

Anatomy of the Nervous System

The Anatomy of the Nervous System: Its Development and Function. By Stephen Walter Ranson, M.D., Ph.D. Revised by Sam Lillard Clark, M.D., Ph.D. (Pp. 581 + xii, with 434 illustrations, 18 in colour. South African price: £3 12s. 3d.) Philadelphia and London: W. B. Saunders Company. 1953.

Contents: 1. The Origin and Function of the Nervous System. 2. Gross Anatomy of the Nervous System. 3. Meninges and Blood Vessels of the Central Nervous System. 4. Histogenes of the Nervous System. 5. Neurons and Neuroglia. 6. The Spinal Nerves. 7. The Autonomic Nervous System. 8. The Spinal Cord. 9. Fiber Tracts of the Spinal Cord. 10. The Structure of the Medulla Oblongata. 11. Internal Structure of the Pons. 12. The Internal Structure of the Mesencephalon. 13. The Cranial Nerves and their Nuclei. 14. The Cerebellum. 15. The Diencephalon. 16. The Internal Structure of the Cerebral Hemispheres. 17. The Rhinencephalon. 18. The Cerebral Cortex. 19. The Great Afferent and Efferent Systems. 20. Reflexes and Reflex Arcs. 21. Clinical Illustrations. Sections of the Brain. A Laboratory Outline of Neuroanatomy. Bibliography. Index.

Ranson's *Anatomy of the Nervous System* has always borne the stamp of its originator's personality. This it retains in the present 9th edition, the second to be edited by Professor Clark since Professor Ranson's death. It is a measure of Professor Clark's success that he has been able to bring the text up to date without destroying the individuality of the original author's approach to the subject.

This is a beautiful book, presenting its subject matter in an unhurried and comprehensive manner. It is admirably suited to the student following an extensive course in neuro-anatomy, as is commonly the case in American medical schools. No part of the subject is skimped, and the integration of structure and function, so admirably illustrated by the nervous system, is properly emphasized throughout. The bibliography is helpful and the index sound. A book which is certain to retain its distinguished place in the literature.

Many Modes of Treatment

Current Treatment, 1953. By Miscellaneous Contributors. Edited by Howard F. Conn, M.D. and 12 Consulting Editors. (Pp. 835 + xxxii. 93s. 6d.) Philadelphia and London: W. B. Saunders Company, 1953.

Contents: *Section One*: The Infectious Diseases. *Section Two*: Diseases of the Respiratory System. *Section Three*: Diseases of the Cardiovascular System. *Section Four*: Diseases of the Blood and the Spleen. *Section Five*: Diseases of the Digestive System. *Section Six*: Disorders of Metabolism and Nutrition. *Section Seven*: Diseases of the Endocrine System. *Section Eight*: Diseases of the Urogenital Tract. *Section Nine*: The Venereal Diseases. *Section Ten*: The Allergic Diseases. *Section Eleven*: Diseases of the Skin. *Section Twelve*: Diseases of the Nervous System. *Section Thirteen*: Diseases of the Locomotor System. *Section Fourteen*: Obstetric and Gynecologic Conditions. *Section Fifteen*: Diseases Due to Physical and Chemical Agents. *Section Sixteen*: Appendices and Indices.

In view of the great reputation of the publishers and the distinguished galaxy of consultants who are responsible for this work of reference it seems to me to be somewhat of a disappointment. Three hundred contributors' names are to be found spread over some 800 pages.

Sometimes more than one contributor gives his views on the same subject and it is disconcerting to find 2 contributors holding diametrically opposite views as to the efficacy of a mode of treatment which should have been well tested by time. For example, Iowa City and Boston disagree absolutely as to the value of sulphonamides in scarlet fever. Sometimes 2 contributors provide us with articles which are identical save that they are written out in a different order of words. And what are we to make of this sentence under the heading 'Rabies (Hydrophobia)'? 'Cleanse the wound thoroughly with soap and water and cauterize with fuming nitric acid or pure carbolic acid followed by 95 % alcohol. Protect the surrounding skin with a coating of petrolatum. *It is now felt that thoroughly cleansing with soft soap and water is just as effective as cauterization.*'

Dr. Conn in undertaking the scrutiny of this book of articles has set himself an impossible task; it would take a very exceptional man to read through the articles and preserve his attentive faculty. The method offers advantages owing to the ease with which a large number of small articles by a large number of authors can be easily assembled under their appropriate headings year by year, but it gives the editor and his consultants a difficult task. Books of reference can be of 2 kinds: either they can take their place on the shelves of a doctor's library or consulting room for quiet reading, or they should be of such a handy size that he can carry them about for ready reference. In the first instance it is desirable that they should have attractive covers. This the book has not, while its weight is such that it will stand very little handling. To the contents I have already referred: they make dull and difficult reading owing to an over-condensation more suitable to a volume in the second category, i.e. the small book for the doctor's bag.

As examples of the 2 kinds of reference books to which I have referred, I may mention *The British Encyclopaedia of Medical Practice* and the *Handbook of Medical Treatment* edited by 3 very competent people from California. The method adopted by the former of supplying annual supplements with the latest information has obvious advantages, while in the latter the admirable arrangement and clear-cut division of each subject by means of letters and numbers makes for clear ideas for the reader which are not readily forgotten.

It is advisable for the reader to see the disease which he is studying as a whole rather than the treatment alone taken out of its context; the distinguished teacher who advised his students to read monographs surely did not mean short monographs on treatment alone.

Text-book of Midwifery for Nurses

The Rotunda Text-book of Midwifery for Nurses. Edited by O'Donel Browne, M.B., M.A.O., M.A., Litt.D., F.R.C.P.I., F.R.C.O.G. (Pp. 302 + vi, with 135 illustrations. 21s.) Bristol: John Wright & Sons Limited. 1952.

Contents: 1. Anatomy and Physiology. 2. Antenatal Care. 3. Normal Labour and Puerperium. 4. Abnormalities of the Puerperium. 5. Abnormalities in Labour with Natural Presentations. 6. Various Maternal and Foetal Complications. 7. Breech Presentation. 8. Other Complications of Labour. 9. The Haemorrhages of Pregnancy. 10. The Toxaemias of Pregnancy. 11. Eclampsia: Hyperemesis Gravidarum. Acute Yellow Atrophy of the Liver. 12. Complications of Labour with Unnatural Presentations, and Abnormalities of Uterine Action. 13. The Rh Factor. 14. Pulmonary Embolism. Insanity During Pregnancy. 15. Pelvimetry. Contracted Pelvis. 16. Induction of Labour. 17. Obstetrical Operations. 18. Radiology in Obstetrics. 19. Private Practice. Appendix. Index.

The death last year of Dr. O'Donel Browne was a great loss, not only to those of us who had the honour of working with the late Master of the Rotunda Hospital, Dublin, but everywhere where midwifery is studied and practised.

His text-book on *Midwifery for Nurses*, published shortly after his death, deserves the highest praise from every point of view. It is handy in size, clearly printed and illustrated on excellent paper, and is written in a simple yet arresting fashion. But above all, it is written with a deep understanding for the specialized needs of student nurses.

Unlike so many otherwise excellent text-books written for nurses by medical men, Dr. Browne's book has avoided those 2 maior pitfalls which seem to engulf his colleagues with such fatal ease. Their work either deals with medical matters that are never likely to come within a nurse's province, or, going to the other extreme, they wholly omit the clinical instruction which proves to be of inestimable value to the nurse as her experience and responsibility widen with the years.

But here in Dr. Browne's book we have everything at

hand that the student of midwifery can need. The mechanics of her profession are presented simply and intelligibly, while her unspoken questions and difficulties are answered and explained away, almost before she is aware of them herself. No student nurse, for her own sake, can possibly afford to be without this little book. And as for Sister Tutors, I venture to prophesy that this 'Midwifery without Tears' is going to prove a source of great comfort to them in moments of stress.

SIEKE SUIGELINGE

Zieke Zuigelingen. Deur C. H. Verboom. (Pp. 290, f.11.50.) Assen: Van Gorcum & Comp., N.V. 1953.

Inhoud: 1. Afwijkingen bij Pasgeborenen. 2. Aangeboren Afwijkingen. 3. De Voeding van de Gezonde Zuigeling. 4. Avitaminosen. 5. Voedingsstoornissen. 6. Brakende Zuigelingen. 7. Enkele Neus-Keel-Oor- en Mondziekten. 8. Ziekten der Ademhalingsorganen. 9. Afwijkingen aan Nieren en Urinewegen. 10. Enkele Bloed-Afwijkingen. 11. Enkele Hart-Afwijkingen. 12. Enkele Infectieziekten. 13. Stuipen. 14. Enkele Huidziekten. 15. Enkele Oogafwijkingen. 16. Acrodynie, Myxoedeem, Mongolisme, Myatonia Congenita, Dysostosis Multiplex. 17. Antibiotica in de Kindergeneeskunde. 18. Het Onderzoek van de Zuigeling. 19. Het Consultatiebureau voor Zuigelingen. Register.

Hierdie boekie het oorspronklik in die vorm van getikte, afgerolde notas verskyn en was bedoel vir die gebruik van Nederlandse huisdokters ten tye van die Duitse besetting van die Nederlande. Die notas was kort en saaklik om leidraad te gee oor diagnose en *behandeling* van die meer gewone siektetoestande by, en gebreke aan pasgeborenes. Dit benadruk die behoeftes van Nederlandse *huisdokters*. Sedertdien, is daardie notas verwerk en word hulle nou in die huidige boekvorm aan 'n wyer kring aangebied. Die inhoud skyn die huidige stand van sake t.o.v. die terapie weer te gee.

Die skrywer is 'n erkende deskundige in Nederland en dit behoort Afrikaner studente aan te moedig om die boekie ook te raadpleeg naas hul gebruiklike handboeke.

Aandag word veral gewy aan aspekte soos: Bloedinge en geelsug by pasgeborenes; voeding van gesonde suigelinge, asook hul voedingstoornisse; siekteverskynsels aan mond, neus, ore en keel; stoornisse van die asemhalingsorgane en urinegange. Afwykinge van die bloed, en die sirkulasie-organe word ietwat breedvoeriger bespreek met betrekking tot hul simptome, vooruitsigte en behandeling.

'n Taamlik volledige hoofstuk oor die hedendaagse gebruik van die antibiotika by die behandeling van suigelinge is één uitstaande asoek van die boekie, terwyl dié oor die ondersoek van sieke babas ewe belangrik en bruikbaar is. Na elke hoofstuk verskyn 'n verkorte literatuuropgawe van Nederlandse skrywers.

Sou dit, terloops, nie veiliger wees om liewer bloed van die moeder, eerder as van die vader, te gebruik by die toepassing van haemoterapie teen melaena neonatorum nie? (Bl. 29.) Rh-sensitisasie van vroulike kinders mag daardeur voorkom word. Dit is o.i. ook jammer dat haemoterapie nie aanbeveel word teen kinderekseem nie!

Die druk is duidelik en die band sterk, en hierdie boekie behoort baie bruikbaar te wees vir ons huisdokters en studente in hul finale jaar van studie wat belangstel in Nederlandse mediese literatuur.

SYMPATHETIC CONTROL OF BLOOD VESSELS

Sympathetic Control of Human Blood Vessels. By H. Barcroft, M.A., M.D., M.R.C.P. and H. J. C. Swan, Ph.D., M.B., B.S., M.R.C.P. (Pp. 165 + vii, with figures. 18s.) London: Edward Arnold & Company. 1953.

Contents: 1. Sympathetic Vasoconstrictor Nerves to Skeletal Muscle. 2. Sympathetic Vasodilator Nerves to Skeletal Muscle. 3. The Action of Adrenaline on the Circulation in Skeletal Muscle. 4. The Action of Noradrenaline on the Circulation in Skeletal Muscle. 5. The Circulation in Skeletal Muscle During Exercise. 6. The Action of Sympathetic Nerves on the Circulation in Skeletal Muscle During Exercise. 7. Sympathetic Denervation. 8. The Action of Adrenaline and Noradrenaline on the Circulation in the Skin. 9. The Action of Adrenaline and Noradrenaline on the General Circulation. 10. Adrenergic Blockade. 11. Phaeochrome Tumours. 12. The Vaso-Vagal Syndrome. Appendix: Plethysmography. Author Index. Subject Index.

This book by two well-known workers in this field is a most valuable monograph. It is issued by the Physiological Society and its excellent standard augurs well for future publications.

The standard throughout the book is very high, and it is therefore difficult to make any distinction between various sections. The bibliography at the end of each chapter is invaluable.

The chapter on phaeochrome tumours is of exceptional interest. The rarity of the diagnosis of these cases during life is stressed, and the authors quote the fact that 270 cases had been reported up to 1949, of which 67% were proven *post mortem*. The predominant hormone liberated from phaeochromocytoma is not always adrenalin, for excess of noradrenalin may be found. The chapter on faints is most authoritative.

This book is a worthy addition to the library of anyone interested in cardiovascular dynamics.

THERAPY FOR OBSTRUCTIVE VASCULAR DISEASE

Physiologic Therapy for Obstructive Vascular Disease. By Isaac Starr, M.D. (Pp. 38 + vii. $2.50.) New York: Grune and Stratton Inc. 1953.

Contents: Preface. 1. Physiologic Therapy for Obstructive Vascular Disease: Conditions Current Before 1928. 2. Physiologic Methods of Treatment. References. Index.

This is a 30-page monograph and is one more of the Modern Medical Monograph Series. The essay is mainly historical and there is really not much new information or advice as to treatment or any new ideas for the investigation of peripheral vascular diseases. Of interest is the reference to that group of patients well known to be subject to early atherosclerosis—the idiopathic hypercholesterolemics. These people, placed on a very low fat diet for a long time, may lose their visible skin lesions. Whether the invisible arterial lesions disappear is not known, but Professor Starr quotes authorities who have informed him that the peripheral pulses absent at the beginning of dietary treatment in these cases returned after about 6 months' treatment.

However, whether dietary treatment will ever play a big part in the treatment of peripheral vascular disease is unknown at the present time.

This monograph is recommended for those interested in the subject and in the growth of research in this field.

TREATMENT OF MENTAL DISORDER

Treatment of Mental Disorder. By Leo Alexander, M.D. (Pp. 507 + xi, with illustrations. South African price: £4 5s.) Philadelphia and London: W. B. Saunders Company. 1953.

Contents: 1. Introduction: The Major Approaches to the Treatment of Mental Illness. 2. The Psychologic Nature of Mental Disorder. 3. Somatopsychic Background and Psychosomatic Nature of Mental Disease. 4. The Cultural Background of Mental Disease and of Attitudes Toward its Treatment. 5. Diagnosis in Psychiatry. 6. General Principles of Psychotherapy. 7. General Principles of Treatment by Shock, Stimulation and Psychosurgery. 8. The Electrical Properties of Currents Used for Treatment. 9. Neurophysiologic Aspects of Physical Treatments for Mental Disease. 10. Complications and Fatalities due to Physical Treatment Methods. Prevention, Emergency Treatment and Lifesaving Measures. 11. The Question of Brain Damage from Electric Treatment and Insulin Coma Treatment. 12. Mode of Action and Results of Psychotherapy and of Physical Treatment of Mental Disorders. 13. Indications for Physical Treatment, Based on Psychiatric and Psychosomatic Clinical Findings. 14. Practical Treatment Techniques. 15. Integration of Physical Treatment with Dynamic Psychotherapy. 16. The Role of the Nurse During Treatment. 17. Treatment of Alcoholism. 18. Treatment of Other States of Intoxication of External Origin. 19. Treatment of Mental Disturbances in Organic Cerebrospinal Disease. 20. Interpretation of Results of Treatment, Flexibility of Treatment and the Need for Adequate Treatment Records. 21. Frontiers for New Research and Development. Index.

The evolution of psychiatric theory and practice has followed 2 major lines during the past few decades. Firstly, there has been the psychogenic approach, which, based on deepening of psychodynamic understanding, shifted its main emphasis from thinking in experiential terms, through thinking in terms of personality dynamics to an increasing emphasis on social-cultural factors. On the therapeutic side this change is reflected in a shift in emphasis from psychoanalysis to psychotherapy.

Secondly, there has been the somatogenic approach which

received its major impetus from Greisinger's famous statement that 'mental diseases are diseases of the brain' and which more recently gained momentum as a result of the highly effective physical methods of treatment which have radically altered the whole outlook for certain types of mental illness.

In the past there has been an unfortunate trend for these 2 major approaches to be developed and written about in isolation from each other. This trend has prevented the 2 methods from being incorporated into a more satisfactory and holistic approach—for which I should like to use the term: the *personogenic* approach to mental illness.

It is the particular merit of the author of this book that he has, in my opinion very successfully, attempted to integrate the physical and psychotherapeutic approaches to the treatment of mental disorder, and to show how useful and fruitful such integration may be under actual therapeutic conditions.

Precise prescriptions for the various practical, proven techniques are presented and illustrated in great and meticulous detail; indications for the various treatments are given, their mutual integration is discussed and all possible complications, including their prevention and management, are given.

This is a book which will specially appeal to post-graduate students of psychiatry and young clinicians in psychiatry. But it will also be found extremely useful by experienced psychiatrists both in private and in mental hospital practice, as well as by the ever-growing body of general physicians who are becoming increasingly aware of the rôle of the mind and the whole personality in disease.

CORRESPONDENCE

PATIENTS SENT OVERSEAS FOR OPERATIONS

To the Editor: It is becoming a rather too frequent occurrence for the Press to publicize the plight of various persons who require operation of one sort or another, and to solicit public financial support to send these patients overseas to have their operations, regardless of whether or not such treatment is available in the Union.

A question of principle is involved: Is it the inalienable *right* of every individual to have the best possible treatment *in the world* at public expense, even if he is unable to afford it himself? This is a Utopian concept, and if followed must be preceded by prodigious generosity to charitable funds by public, doctors and State alike. In other words this idealistic idea is not practicable, and one wonders what steps should be taken to stop this trend, which has several undesirable effects.

In certain cases of which I am aware, the initial fault has probably lain with the doctor who was first consulted, and the Press was appealed to before all avenues had been adequately explored. I wish to make a plea to all doctors and specialists who are confronted with cases which may be difficult or unusual. If in their opinion the operation can best be done by someone oversea, their first thought should be as to whether the patient is in a position to go overseas on his own resources, perhaps assisted by relatives or intimate friends. Such a patient being a free agent is then in a position to accept advice or seek other opinions which he will probably do if great expense is involved.

But when the patient is unlikely to be able to raise several hundred pounds from his own resources it is very wrong indeed for the doctor consulted to express the opinion to the patient that only an overseas surgeon can help him. If the doctor is convinced that this is so, he should have the courage of his convictions and seek confirmation of his opinion by consulting at least 2 of the senior colleagues in the speciality concerned.

Few if any Public Funds will advance money for these purposes on the recommendation of any one doctor, however eminent. They will always seek the guidance of a board of 2 or more doctors whose opinion they rely upon. In the case of ophthalmology, the Ophthalmological Society has nominated a board of 3, in each of the main centres of the Union, to whom the National Council for the Blind turns for guidance when cases of this sort arise in any area.

By telling the patient he *must* go overseas the effects are threefold:

1. The patient, if he fails to raise the funds, is quite convinced that he is being inhumanly treated, and if he submits ultimately to treatment in the Union, he is convinced in advance that it is doomed to failure.

2. The case is likely to appeal to the sensation-loving Press, which will give it the widest publicity, regardless of the feelings of the patient, and of the fact that the public by implication is led to assume that no really difficult cases can be handled in the Union.

3. Following on such publicity, the next patient who is diagnosed as having a similar complaint, having read his papers, is immediately convinced that he hasn't a hope of recovery unless he goes to America, England or Holland or elsewhere. There is, furthermore, always the possibility that any one doctor may not be fully conversant with the facilities available in his own centre, or one of the other centres in the Union.

Only if agreement is reached that the required treatment is not available in the Union, and that it is necessary, should Public Funds sponsor such proposals; or appeals for donations be made in the Press.

If the original doctor, having failed to convince his colleagues of the necessity, is still of opinion that overseas treatment is the only solution, only then should he express such an opinion.

Finally, I would suggest that Federal Council should approach all editors through the Press Association, and ask them to ensure that some such procedure as I have outlined should be followed before they launch further hard luck stories of this kind.

R. L. H. Townsend.

National Mutual Buildings,
Church Square,
Cape Town.
18 September 1953.

'STATE OF NERVES' OF MODERN MANKIND

To the Editor: In his highly interesting but provocative article *Modern Trends in Pharmacology and Therapeutics in Relation to Nutrition* (this *Journal*, 29 August 1953, page 745), Dr. Douw G. Steyn voices the rhetorical statement: 'Is it going too far when I say that deficiencies of B-complex vitamins and of certain amino-acids *and the great prevalence of DDT in our food* (my italics) are in a measure responsible for the the deplorable "state of nerves" of modern mankind?'

The insecticidal properties of DDT were discovered and tested by Dr. Paul Müller in 1938, and Britain and America were the first to put this insecticide to practical use in the field of hygiene and preventive medicine in 1943. As an agricultural insecticide in connection with the production of food, DDT has been in use for rather less than a decade.

In the long history of mankind few periods can compare with the sustained tension over the past turbulent (and, at times, chaotic) 50 years, accompanied, as they have been, by so much passion and pain, so much sorrow and sadness, so much discord and so many disappointments, such fears and frustrations; and followed by such bitter disillusion. It might seem a trifle illogical to accuse deficiencies in vitamins and hitherto harmless insecticides for creating a 'state of nerves' in modern man, when he may simply be manifesting the results of emotions and experiences indoctrinated into more than 2 generations.

Acute poisoning with DDT is an established fact, the signs and symptoms of which are known. Experimental controlled research confined to animals over weeks and months has produced evidence of chronic poisoning. No such research on a large scale and over a prolonged period, for obvious reasons, has been possible with human beings, so that labelling unidentified diseases and illnesses as due to chronic poisoning with DDT is pure conjecture.

J. B. Lurie.

Johannesburg.
16 September 1953.

The Medical Association of South Africa : Die Mediese Vereniging van Suid-Africa

AGENCY DEPARTMENT : AGENTSKAP-AFDELING

KAAPSTAD : CAPE TOWN

Posbus 643, Telefoon 2-6177: P.O. Box 643, Telephone 2-6177

PRAKTYKE TE KOOP : PRACTICES FOR SALE

(1356) Very well established CAPE TOWN SUBURBAN PRACTICE. Outright sale or alternatively partnership share available to Gentile purchaser. Excellent opportunity to acquire a good class practice. Details on application.

(1421) Klein Karoo. Praktyk gelee in ryk wolstrik. Geen opposisie. Spoorwegaanstelling teen £740 per jaar. Gemiddelde jaarlikse inkomste oorskry £2,500. Premie van £1,500 sluit in instrumente en medisyne.

(1437) Prescribing practice in Transkei, 90% native and therefore cash. Gross takings over £2,000 p.a. including contract of approximately £150 p.a. Little night or week-end work, definite scope for expansion. No surgery and little maternity done. Easy travelling distance from sea. Surgery for hire at £5 p.m. Owner going overseas and therefore prepared to sacrifice at £600 for quick sale.

ASSISTENTE/PLAASVERVANGERS VERLANG

(1440) Boland. Vanaf 15 Desember 1953 vir 1 maand. Salaris £3 3s. per dag of £2 12s. 6d. per dag plus losies, petrol en olie of £2 5s. per dag plus losies, petrol, olie en motor. Verkieslik eie motor.

E.N.T. SPECIALIST

Partnership offered in a growing E.N.T. practice. Two appointments at present and a third would be available to the incoming man. Premium required £1,250.

OPHTHALMIC PRACTICE FOR SALE

(1325) Excellent opportunity to acquire expanding practice with 2 appointments. The area served is enormous and the population is steadily becoming specialist conscious. Present income approximately £3,000 per year. Possibilities for expansion are exceptionally good.

CONSULTING ROOMS TO LET

(1422) St. George's Street, Cape Town. Share waiting room, services nurse receptionist, sole use of one consulting room.

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JOHANNESBURG

Medical House, 5 Esselen Street, Telephone 44-9134-5, 44-0817
Mediese Huis, Esselenstraat 5. Telefone 44-9134-5, 44-0817

PRAKTYKE TE KOOP : PRACTICES FOR SALE

(Pr/S82) Excellent non-European practice near Johannesburg. Established in 1944. Average annual *net* income £2,700 cash. Premium required is £2,000 and terms can be arranged. Premium includes contents of surgery and maternity ward.

(Pr/S78) Oud-gevestigde Vrystaatse praktyk met D.G. aanstelling. Gemiddelde jaarlikse inkomste oorskrei £4,000. Premie van £2,000, sluit medisyne en apparate in. Uitstekende geleentheid vir 'n jong man.

(Pr/S84) Pleasant town in Northern Transvaal, with hospital facilities. General practice which was run by seller for 10 years besides a large non-transferable mine appointment. The appointment did not allow time for any Native work—only for very few district calls. Net cash income over £1,200 per year though only few hours daily were spent in this practice. Premium £500 on terms. Excellent start for young man.

(Pr/S85) Progressive Transvaal dispensing practice. Excellent surgical facilities. Average gross income £3,500 per annum. Premium required £2,500 and the following terms could be arranged: £1,250 deposit and the balance over a period of 18 months, starting 3 months after cash payment. The premium includes drugs, furniture and fittings, estimated at £800. Two transferable appointments worth £230 per annum. Scope for expansion.

(Pr/S87) Wes-Transvaal. Uitstekende praktyk. Gemiddelde jaarlikse inkomste oorskrei £3,000. Woonhuis en spreekkamers te koop of te huur teen £14 en £11 per maand, onderskeidelik. Premie verlang is £1,500 en terme kan gereël word. Skryf om volle besonderhede.

(Pr/S88) O.V.S. Algemene praktyk met D.G. aanstelling. Geen opposisie. Jaarlikse inkomste ongeveer £3,500. Premie van £1,750 sluit in groot voorraad medisyne, instrumente en meubels. Hierdie is ook 'n ougevestigde praktyk.

(Pr/S89) Pretoria practice. Chiefly European patients. Average annual income £3,600. *Premium* £900 *for a quick sale.* Premium includes furniture and some instruments, and terms could be arranged.

(Pr/S93) Transvaal. Uitstekende praktyk met twee aanstellings. Moderne hospitaal. Gemiddelde jaarlikse inkomste oorskry £5,000. Premie van £2,500 sluit sekere meubels en instrumente in en terme kan gereël word. Goeie geleentheid vir twee geneeshere.

PARTNERSHIPS OFFERED : VENNOOTSKAPPE AANGEBIED

(P/O21) Half-share in essentially English-speaking private practice in Johannesburg. Preferably Gentile with 3 or 4 years' experience. Premium £2,500.

(P/O22) Reef hospital town. Partnership offered in very well-established and well-organized private practice. Preferably Jewish doctor.

(P/O24) 'n Vennootskap word aangebied in 'n Randse hospitaaldorp, teen 'n premie van £1,500 en terme kan gereël word. Dit is 'n goedgevestigde praktyk en alleen persone met *ondervinding van chirurgie* sal in aanmerking geneem word, vandaar die lae premie.

(P/O25) Transvaal hospital town within easy reach of Johannesburg. Half-share in well-established partnership practice. Average annual income exceeds £5,000. Premium required £2,000 and terms could be arranged. Will suit Jewish doctor interested in surgery.

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DURBAN

112 Medical Centre, Field Street. Telephone 2-4049

PRACTICES FOR SALE : PRAKTYKE TE KOOP.

(PD15) General practice established 1941 at pleasant residential and seaside resort about 10 miles south of Durban. Annual income approximately £1,000. No major surgery, minimum of minor surgery and only emergency midwifery being done at present. Brick house with consulting room attached, for sale at £5,250. Owing to ill health owner wishes to retire from practice as soon as possible. Premium £1,000 including drugs, surgery and dispensary furniture.

(PD20) Natal South Coast. General mixed prescribing practice. Premium £1,000 plus £200 for full equipment of 2 surgeries. Large proportion of the patients are European visitors, and Indians. A lucrative Native practice could be built up if dispensing was carried out. Immediate introduction.

(PD21) East Griqualand. General mixed practice with net profit of £3,000 annually. Premium £1,900, terms if required. Excellent opportunity for newly qualified practitioner.

(PD22) Natal. Prescribing and dispensing country practice. Total gross receipts for 1951, £3,344 15s. 9d.; 1952, £2,817 10s. 6d.; 1953 (3 months), £846 6s. 10d. Premium £1,500, includes drugs, consulting room furniture and instruments. House for sale £5,500.

(PD23) Natal. Prescribing practice particularly suitable for a woman doctor interested in obstetrics and gynaecology. Total gross receipts for 1950, £1,570; 1951, £1,595; 1952 (6 months), £1,340; 1953 (3 months), £382. Premium £1,250, includes furniture, fittings, instruments, drugs and existing book debts.

(PD24) Natal South Coast. Practice suitable for doctor who does not want full time work. £250 for drugs, dressings, instruments, etc. No charge for goodwill. Small house on ½ morgen, £1,600. Immediate occupation.

PARTNER REQUIRED

(PDX) Durban. General practitioner offers 45% partnership on 18 months' purchase. Applicants should be experienced and be able to put down a certain amount of capital.

Nasionale Hospitaal, Bloemfontein

VAKANTE POSTE: DEELTYDSE ORTOPEDIESE CHIRURGE

Aansoeke word hiermee ingewag van daartoe behoorlike gekwalifiseerde en geregistreerde Ortopediese Chirurge vir twee deeltydse poste by die Nasionale en Tempe Provinsiale Hospitale, Bloemfontein.

Pligte sal op 'n deeltydse basis wees bestaande uit 7 sessies van 4 uur elk per week teen die besoldiging van £205 per sessie per jaar.

Aansoeke met vermelding van volle besonderhede moet die ondergetekende bereik op of voor 21 Oktober 1953.

J. W. Wessels
Geneesheer-Direkteur

15 September 1953 (A375535)

National Hospital, Bloemfontein

VACANCIES: PART-TIME ORTHOPAEDIC SURGEONS

Applications are invited from duly qualified and registered Orthopaedic Surgeons for two part-time posts at the National and Tempe Provincial Hospitals, Bloemfontein.

Duties will be on a part-time basis comprising 7 sessions of 4 hours each per week at the remuneration of £205 per session per annum.

Applications stating full particulars must reach the undersigned on or before 21 October 1953.

J. W. Wessels
Medical Superintendent

15 September 1953 (A375535)

Part-time General Surgeon

Applications are invited for the post of part-time general surgeon to the City Council Employees' A.T.C. Benefit Society, Johannesburg. The present membership is 1,925 members plus dependants. The minimum salary is £75 per month, subject to adjustment in accordance with experience and qualifications.

Applications must be forwarded to the Secretary, City Council Employees' A.T.C. Benefit Society, 508 Africa House, Rissik Street, Johannesburg, not later than 10 October 1953, from whom any further information can be obtained.

(This appointment has the approval of the Medical Association of South Africa.—*Assistant Secretary, M.A.S.A.*)

Welkom

CONSULTING ROOMS TO LET

Suites of consulting rooms to let in Post Office Chambers, Civic Centre, Welkom. Can be completed to applicant's requirements.

Apply: Fresta Holdings Limited, P.O. Box 8545, Johannesburg. Telephone: 33-6195.

Vennootskap Verlang

Algemene praktisyn met ses jaar ondervinding in die Karoo, soek vennootskap in enige Bolandse dorp. Besit eie praktyk, en is bereid om te ruil vir 'n vennooskap in die Boland. Skryf aan 'A. S. N.', Posbus, 643, Kaapstad.

Rooms To Let

General practitioner prepared to share rooms and services of receptionist with specialist in Harvard Centre, Pinelands. Available from January 1954. Reply 'A. S. O.', P.O. Box 643, Cape Town.

Vacancies for Visiting Medical Officers

(PART-TIME)

WESTLAKE HOSPITAL, RETREAT

Applications are invited from suitably qualified candidates for appointment to the undermentioned situations which exist on the establishment of the Westlake Hospital, Retreat.

Post	*Remuneration attaching to post*	*Duties*
(*a*) Thoracic Surgeon	£1,500 per annum (fixed)	Four operation and four consultation sessions per week.
(*b*) General Surgeon	£500 per annum (fixed)	One operation and one consultation session per week.

Candidates must be South African citizens, or citizens of a Commonwealth country or citizens of the Republic of Ireland, be bilingual and have resided in the Union of South Africa or in South West Africa for at least three years.

Registration with the South African Medical and Dental Council as a specialist in the particular speciality is an essential requirement for appointment to any of the posts.

The appointees will be expected to treat patients in the Westlake Hospital, the Brooklyn Chest Hospital, the Dr. Stals Hospital and City Hospital, and also to co-operate in any research work connected with their specialities and to attend staff consultations when possible.

Further information in regard to these proposed appointments can be obtained from the Medical Superintendent of the Westlake Hospital, P.O. Retreat.

Applications should be submitted on the prescribed forms (Z.83 and P.S.C.8(a)) which are obtainable from the Secretary for Health, P.O. Box 386, Pretoria.

The closing date for receipt of applications will be 17 October 1953.

(42426)

National Hospital: Bloemfontein

VACANCIES

Applications are hereby invited from candidates with suitable qualifications for the following post at the National Hospital and Tempe Provincial Hospital, Bloemfontein.

Applications must be posted to reach the Medical Superintendent as soon as possible and must contain full particulars concerning age, professional qualifications, experience and marital status of the applicants who must indicate the earliest date on which duty can be assumed if appointed.

(a) Full-time specialist Anaesthetist on the salary scale £1,750 × 50—£1,900 p.a. plus ruling cost of living, at present £320 p.a. for married persons and £100 p.a. for single persons.

The successful applicant will be expected to produce satisfactory certificates concerning qualifications.

All appointments are subject to the Hospital Regulations as amended.

J. W. Wessels
Medical Superintendent

18 August 1953 (A375533)

Room To Let

Bright airy room to let. Modern building in Main Road, Claremont. Ideally suited for dentist. Apply 122 Main Road, Claremont.

Transvaal Provincial Administration

VACANCIES: TRANSVAAL PUBLIC HOSPITALS

Applications are invited from suitably qualified candidates for the undermentioned posts at Public Hospitals in the Transvaal.

Applications should be addressed to the Medical Superintendents of the undermentioned Hospitals concerned and should contain full particulars as to the age, professional and academic and language qualifications, experience and conjugal status of of the applicant and should further indicate the earliest date upon which duties can be assumed. Copies, only, of recent testimonials to be attached.

Cost-of-living allowance payable at present to full-time employees:

Salary	*Cost-of-living Allowance* *Married*	*Single*
Over £350 per annum	£320 per annum	£100 per annum

Full-time employees receive in addition to their salaries and cost-of-living allowance, the following privileges:

Leave and rail concession.

Successful candidates will be required to submit satisfactory certificates as also to submit to a medical examination at the hospital concerned.

Application forms are obtainable from any Transvaal Provincial Hospital or the Provincial Secretary, Hospital Services Branch, P.O. Box 2060, Pretoria.

The closing date of applications for undermentioned posts will be 12 October 1953.

Hospital	*Post*	*Emoluments*	*Remarks*
Pretoria	Junior Radiologist (Therapy) (1)	£1,200 × 50—1,500	Registered medical Practitioner.
Potchefstroom	Part-time Casualty Officer (1)	£30 per month	Registered medical practitioner.

(42524)

Public Service Vacancies

1. The attention of medical practitioners, registered with the South African Medical and Dental Council, is drawn to an advertisement appearing the *Government* and *Provincial Gazettes* of 18 and 25 September and 2 October 1953, inviting applications for the undermentioned posts:

Post	*Department*	*Salary Scale*
District Surgeon, Grade III	Health (Pietermaritzburg and Durban)	£900 × 50—1,150
Medical Officer (Mental Hospital Service)	Health	£900 × 50—1,150
Medical Officer (on contract for two years)	Health (Knysna and Nottingham Road)	£900 × 50—1,150

2. In addition to salary a cost-of-living allowance at the rate of £320 per annum (married) and £100 per annum (single) is payable at present.

3. It is emphasised that full and detailed particulars of qualifications and previous experience must be furnished but original certificates and testimonials should not be submitted. Application forms Z.83 and P.S.C.8(a) are obtainable from the Secretary for Health, Pretoria, to whom filled-in forms must be addressed.

4. The closing date for the receipt of applications is 24 October 1953.

(42458)

Printed by Cape Times Ltd., Parow, and Published by the Proprietors, THE MEDICAL ASSOCIATION OF SOUTH AFRICA, MEDICAL HOUSE, 35 Wale Street, Cape Town. P.O. Box 643. Telephone 2-6177. Telegrams: 'Medical'